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HUME:

THE RELATION OF THE TREATISE OF HUMAN NATURE—BOOK I TO THE INQUIRY CONCERNING HUMAN UNDERSTANDING

THESIS

PRESENTED TO THE

UNIVERSITY FACULTY OF CORNELL UNIVERSITY

FOR THE

DEGREE OF DOCTOR OF PHILOSOPHY

BY

WILLIAM BAIRD ELKIN

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PREFACE.

This thesis contains the first seven chapters of a more extended work which is now being published by the Macmillan Company of New York. In addition to what is here presented the complete work treats, in separate chapters of the following topics: Belief; Probability, Necessity, and the Reason of Animals; Material Substance and External Existence; Spiritual Substance, Self, and Personal Identity; Miracles, a Particular Providence, and a Future Life; Conclusion. There are also two Appendices, the first of which consists of an Outline of the Relation of the Treatise to the Inquiry, while the second is a Bibliography of the literature on Hume.

W. B. E.

Columbia, Mo.
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CHAPTER I.

INTRODUCTION.

§ 1. *Preliminary Remarks.*—The history of English empirical philosophy is sometimes likened to a drama in five acts. In the first act, a system of empiricism is inaugurated by Bacon; in the second and third, the dialectic movement is gradually unfolded by Hobbes and Locke; in the fourth, the usual complications arise through the criticisms and transformations of Berkeley; finally, in the fifth, the scene closes with the annihilating catastrophe of Hume.[1]

But as Hume marked the melancholy close of the era of sensationalism, he heralded the inspiring dawn of a brighter epoch, the era of idealism, and at the same time laid the foundation for a synthesis of the two, in the more scientific movement of the present age. Reid in Scotland and Kant in Germany were awakened, almost simultaneously, from their dogmatic slumbers, by the subtle and irresistible dialectic of the great skeptic. British and German philosophy, however, when drifting peacefully toward a euthanasia, far from being overwhelmed by the storm of Hume's criticism, were only instigated thereby to make a new tack in the never-ending pursuit of speculative truth. With felicity no less than impressiveness, Sir William Hamilton, in his introductory lecture in 1836, declared: "The man who gave the whole philosophy of

[1] *Cf.* Grimm, *Zur Geschichte des Erkenntnisproblems von Bacon zu Hume*, Vorwort.

Europe a new impulse and direction, and to whom, mediately or immediately, must be referred every subsequent advance in philosophical speculation, was our countryman—David Hume. . . . The skepticism of Hume, like an electric spark, sent life through the paralyzed opinions; philosophy awoke to renovated vigor, and its problems were again to be considered in other aspects, and subjected to a more searching analysis."

It matters little in what manner the position of "the last great English philosopher" be designated in the history of speculative thought, for his system is so unique, and so significant that it will always awaken the most profound reflection, as well as merit the most candid examination. The study of Hume's works, however, is unusually perplexing, and the true significance of his philosophy of human nature extremely difficult accurately to determine, partly, because of the different phases of thought, obscurities, ambiguities, and even inconsistencies that appear in his writings, but chiefly, because of the twofold exposition of his system. Before a just estimation of his philosophy can be arrived at, the more important relations subsisting between his philosophical writings must be ascertained. It is, therefore, a question of much interest what the relations of his chief works are to one another. Moreover, this question is also one of much importance. For although Hume's influence is not perhaps so great now as when James Hutchison Stirling wrote:[1] "Hume is our Politics, Hume is our Trade, Hume is our Philosophy, Hume is our Religion,—it wants little but that Hume were even

[1] *The Secret of Hegel*, p. lxxiii.

our Taste,'' his once striking position in philosophical and political thought is still justly prominent. ''The *Treatise of Human Nature* and the *Critic of Pure Reason,''* remarked his most relentless critic,[1] ''taken together, form the real bridge between the old world of philosophy and the new. They are the essential 'Propædeutic,' without which no one is a qualified student of modern philosophy.''

Hume's great philosophical work is *A Treatise of Human Nature.* It consists of three books: I, ''Of the Understanding''; II, ''Of the Passions''; III, ''Of Morals'';—*intellect, feeling,* and *will.* The first two volumes were published in 1739, and the third in 1740. It seems, however, that the book was written as early as 1736, when Hume was only twenty-five years old.[2] True, in accordance with one of the author's distinctive characteristics, it was continually revised, up to the very time of publication.[3] Yet the changes which were made appear to have dealt with form more than with content; and so far as they had reference to content, they were made rather in the way of omission, than in the way of development.[4] But the *Treatise of Human Nature* awakened no interest, and received almost no notice; it ''fell *dead-born from the press,''*—to use the expressive words of the author. Nevertheless, Hume, thinking that he

[1] Hume's Philosophical Works, I. Green's " Introduction," p. 3.—The references throughout are to the Green and Grose edition; I, 1890; II, 1882; III and IV, 1889. Since I, contains the Treatise and IV, the Inquiry, in explicit references to these works the volume number is not given.

[2] *Cf.* Burton, *Life and Correspondence of David Hume,* I, pp. 98, 337.

[3] *Ibid.,* I, pp. 62, 63.

[4] *Ibid.,* pp. 63, 64.

had made a mistake in publishing too early, still believed that his system of philosophy was of permanent value.[1] Hence, he revised the *Treatise of Human Nature,* and published it in much briefer, and more popular form. The abbreviated work appeared as follows: *Philosophical Essays concerning Human Understanding,* 1748; *An Inquiry concerning the Principles of Morals,* 1751; *A Dissertation on the Passions,* 1757. It is only with the first book of each group that I propose to deal in the present volume. These books will be designated respectively, for the sake of convenience and in accordance with common usage, the Treatise, and the Inquiry. Reference, of course, will be made, from time to time, to Hume's other philosophical writings, for the purpose of throwing additional light upon the subject, or in order to obtain a more comprehensive view of the matter under discussion.

§ 2. *Aim.*—There is a general impression that the position which Hume adopted in the Inquiry is not identical with that which he had previously assumed in the Treatise, and consequently, that the philosophical principles of the later work are not exactly the same as those of the earlier. It is sometimes said that the Inquiry represents the position of the empiricist, or positivist, while the Treatise represents the position of the skeptic;—as was remarked recently by one of the most brilliant philosophical writers of our time:[2] "The Treatise is the close of sensationalist philosophy, the Inquiry the beginning of common sense philosophy." Hence, it is

[1] Hume, *My Own Life.*

[2] Schurman, *The Philosophical Review,* Vol. VII, p. 10, n.

inferred that the later work, not being so negative as the earlier, represents an important change as having occurred in the author's thought when his mind became more mature.[1] On the other hand, some writers assert that the position, or standpoint of both books is essentially the same.[2] But then, regarding the exact nature of that position there are again differences of opinion; Huxley,[3] for example, insisting that it is mainly positive, and Green[4] maintaining that it is chiefly negative. If we appeal to the testimony of the author himself, this confusion is by no means removed. For in the advertisement to the second volume of the posthumous and authoritative edition of his *Essays and Treatises on Several Subjects*—a volume containing the Inquiry,—not only does Hume complain that "several writers, who have honored the author's philosophy with answers, have taken care to direct all their batteries against the juvenile work, which the author never acknowledged," but he concludes as follows:[5] "Henceforth, the author desires, that the following pieces may alone be regarded as containing his philosophical sentiments and principles." Yet on another occasion, in a letter to Gil-

[1] *Cf.* Burton, *Life*, I, pp. 120, 273, 274; Erdmann, *History of Philosophy*, II, p. 128; Falckenberg, *Gesch. d. neueren Phil.*, second ed., p. 185, n. 2; Hyslop, *Hume's Treatise on Morals*, p. 17; Hunt, *Contemporary Review*, Vol. XI, p. 77.

[2] *Cf.* Green, "Introduction to Hume"; Huxley, *Hume*, pp. 11, 45; Webb, *Veil of Isis*, p. 71; McCosh, *Hist. of Scottish Phil.*, p. 123; Jahn, *D. H. Causalitätstheorie*, p. 6.

[3] *Hume*, pp. 51, 60.

[4] Hume's Philosophical Works, Preface to Vol. I, and General Introd.

[5] *Ibid.*, III, p. 38.

bert Elliot, he says:[1] "I believe the Philosophical Essays [the Inquiry] contain every thing of consequence relating to the understanding, which you would meet with in the Treatise; and I give you my advice against reading the latter. By shortening and simplifying the questions, I really render them much more complete. *Addo dum minuo.* The philosophical principles are the same in both; but I was carried away by the heat of youth and invention to publish too precipitately." To clear up this obscurity on the question regarding Hume's exact position in his two chief philosophical works is the aim of the present investigation.

§ 3. *The General Relation of the Treatise and Inquiry to Hume's other Philosophical Writings.*—Before entering upon the work in detail, it may be well to indicate, in a general way, the relation in which these two books stand, (1) to the philosophical writings with which they are connected, and (2) to each other. The first of these topics will be treated in the present section, the second, in the following section.

As has already been said, it is only the first book of each group that falls within the scope of this investigation. But here two questions at once suggest themselves: (1) What are the relations of the different books within each group to one another? and (2) Can the relation of the Treatise to the Inquiry be thoroughly examined without taking account also of the books with which these two are respectively connected? Leaving aside the second question for the moment, we find a partial answer to the first, in the ad-

[1] Burton, *Life*, I, p. 337; cf. p. 98.

vertisement to Books I and II of the *Treatise of Human Nature.* "The reader must only observe," says Hume, "that all the subjects I have there planned out to myself, are not treated of in these two volumes. The subjects of the Understanding and Passions make a complete chain of reasoning by themselves; and I was willing to take advantage of this natural division, in order to try the taste of the public. If I have the good fortune to met with success, I shall proceed to the examination of Morals, Politics, and Criticism; which will complete this Treatise of Human Nature." Here it is seen that Hume regarded Books I and II as forming a connected piece, thus practically constituting one book. But the relation of these two volumes to the third is not so close, as the author has already indicated, and as he afterwards specifies more definitely in the advertisement to Book III. "I think it proper to inform the public," he says, "that though this be a third volume of the Treatise of Human Nature, yet it is in some measure independent of the other two, and requires not that the reader should enter into all the abstract reasonings contained in them. . . . It must only be observed, that I continue to make use of the terms, *impressions* and *ideas,* in the same sense as formerly." From these quotations we learn that Hume's philosophy, so far as it is presented in the *Treatise of Human Nature,* falls into two general divisions which are, in large measure, independent of each other, viz., the philosophy of the understanding and passions on the one hand, and the philosophy of morals on the other.

In the first section of the Inquiry, the author adopts the twofold classification of mental science

which the Latins had inherited from the Greeks, which the scholastics had popularized, and which prevailed in occidental philosophy generally, until superseded by the tripartite division of Kant;—a division which, through the present dominating influence of the biological sciences, is again giving place to the Aristotelian classification. Hume states that moral philosophy or the science of human nature "may be treated after two different manners," abstractly, or concretely.[1] And besides making this distinction in method, he recognizes a corresponding division of subject-matter, viz., the "abstruse" or theoretical philosophy, and the "easy" or practical; the former being conversant with the understanding, and the latter with the feelings and will. Thus he asserts:[2] "There are many obvious distinctions [between the powers and faculties of the mind], such as those between the will and understanding, the imagination and passions, which fall within the comprehension of every human creature." This same division is implied in the first book of the *Treatise of Human Nature,*[3] and is explicitly made in the third book.[4] Consequently, Hume's philosophy, so far as it is presented in the *Treatise of Human Nature,* and in the *Inquiries* and *Dissertation*—thus omitting Politics and Criticism, subjects with which we have no direct concern,—although falling externally into three divisions, may properly be regarded as consisting of two parts, theoretical, and practical. Theoretical philosophy is treated in Book I of the *Treatise of Human Nature,*

[1] Pp. 3, 4.
[2] P. 10.
[3] I, p. 543.
[4] II, pp. 235, 236.

and in the *Inquiry concerning Human Understanding.* While practical philosophy is treated in Books II and III of the *Treatise of Human Nature,* and in the *Dissertation on the Passions* and the *Inquiry concerning the Principles of Morals.*

We come now to a closer examination of our question. What are the relations of dependence in which the books within each group stand to one another? An answer is found in the second section of Book I, and in the first section of Book II of the *Treatise of Human Nature.* All the perceptions of the mind are impressions and ideas. All impressions and ideas are those of sensation, and those of reflection. It may be said that Book I treats of impressions and ideas of sensation,[1] Books II and III of impressions and ideas of reflection. Now, since impressions of sensation are the perceptions that appear first in the mind, while ideas of sensation are but copies of these; and since impressions of reflections arise "either from the original impressions, or from their ideas;"[2] the treatment of impressions and ideas of reflection will be dependent on that of impresions and ideas of sensation, and not *vice versa.* Consequently, Books II and III are dependent on Book I, but Book I is not dependent on Books II and III. In the *Inquiries* and *Dissertation* the two sections just mentioned are omitted. Moreover, among these works there is no connection indicated, except the general relation between the subjects of which they treat, theoretical philosophy, and practical. The *Inquiries* and *Dissertation* were not only written at different times, but

[1] *Cf.* I, p. 380.
[2] II, p. 76.

also in a chronological order different from that of the corresponding books of the *Treatise of Human Nature*. They stand, therefore, practically, in no relation of dependence upon one another.

It is now easy to answer the second question, viz., Can the relation of the Treatise to the Inquiry properly be investigated without a special examination of Hume's other philosophical writings? The answer is in the affirmative, for the following reasons:—(1) Only the first two books of the *Treatise of Human Nature* are closely connected, and regarding them, there is a relation of dependence only on the part of the second. (2) The *Inquiries* and *Dissertation* are, practically, not only separate works, but also independent. (3) The Treatise and Inquiry contain all of Hume's epistemology and metaphysics that is of permanent or real value for the history of philosophy.

§ 4. *The General Relations of the Treatise and Inquiry to each other.*—We turn now for a moment to the general relations in which the Treatise and Inquiry stand to each other. These may be considered under the two heads of form, and content.

I. The General Relation of the Treatise to the Inquiry with regard to Form. Here two points may be noted, style, and arrangement.

1. Style. Dr. Johnson said that Hume's style was not English but French. Johnson, however, was not an unbiased critic of Hume. Yet Grose admits that, so far as the structure of sentences is concerned, Hume was influenced by the literature of France at the time he wrote the Treatise.[1] We think it may be questioned, whether the French element—if such

[1] III, p. 40.

it can be called—in Hume's style was not due more to immatureness and originality, than to the influence of French literature. The numerous Scotticisms are significant of the author's provincialism, as well as of his immaturity. Notwithstanding the many expressions of candor, diffidence, hesitation, and skepticism, there is not a little pedantry, superficiality, egotism, and dogmatism. "This work," observed his reviewer,[1] "abounds throughout with egotisms. The author could scarcely use that form of speech more frequently, if he had written his own Memoirs." Now and then, there occurs an expression of insincerity, irony, or ambiguous humor, which is extremely puzzling. In some of the repetitions, what is evidently meant to be the same thing is expressed so differently that it is no longer the same. And besides Hume's philosophical mode of expression, there is his habit of speaking with "the vulgar." These two forms of statement occasionally mingle with each other, or at least seem to mingle, with the result that the reasoning, at times, becomes inextricably confused. Nevertheless, Knight[2] speaks in high appreciation of the "admirable literary form" of the Treatise, and its unequalled *lucidity*, both of thought and of expression." But with Knight's opinion, respecting the lucidity of the Treatise, very few students of Hume—and probably none except Scotsmen,—no matter how enthusiastic they may be in praise of "the master," will be able to concur.

In the Inquiry, the Scotticisms and French phraseology have been superseded by the smooth and

[1] *The Works of the Learned*, Nov., 1739.

[2] *Hume*, p. 26; *cf.* Burton, *Life*, I, p. 91.

polished diction, so characteristic of Hume's later writings. Redundancy, in most cases, has been transformed to brevity. The depth of thought and labored mode of expression of the philosopher have, in large measure, given place to the superficiality and elegance of the author. Hence, while the Treatise is a difficult book to read, the Inquiry is an easy one. Hume thus realized, in part at least, the wish that he expressed at the close of the first section: "Happy, if we can unite the boundaries of the different species of philosophy, by reconciling profound inquiry with clearness, and truth with novelty!"

This change of style, in the later work, is easily explained. In the introduction to the Treatise Hume remarked:[1] "No man needs ever despair of gaining proselytes to the most extravagant hypothesis, who has art enough to represent it in any favorable colors." In a letter to Hutcheson, in 1740, he wrote:[2] "I wish I could discover more fully the particulars wherein I have failed. I admire so much the candor I have observed in Mr. Locke, yourself, and a very few more, that I would be extremely ambitious of imitating it, by frankly confessing my errors." In the Autobiography he asserted: "I had always entertained a notion, that my want of success in publishing the Treatise of Human Nature, had proceeded more from the manner than the matter, and that I had been guilty of a very usual indiscretion, in going to the press too early." And in the first section of the Inquiry[3] he acknowledges that the abstractness of philosophical speculations "is no recommendation, but

[1] P. 306.

[2] Burton, *Life*, I, p. 117.

[3] III, p. 3.

rather a disadvantage to them," and that "this difficulty may perhaps be surmounted by care and art, and the avoiding of all unnecessary detail." It is not surprising, therefore, that Hume toiled incessantly, with unwearying pains, to acquire a good English style;[1] nor is it remarkable that his persistent efforts were crowned with the most gratifying success. In due time he became "the one master of philosophic English."[2]

Still another cause that might be assigned for the change of style, in the Inquiry, was the author's desire to suit his work to the taste of his readers.[3] For the third volume of the *Treatise of Human Nature* was written "in an age, wherein the greatest part of men [seemed] agreed to convert reading into an amusement, and to reject every thing that [required] any considerable degree of attention to be comprehended."[4] And the Inquiry was prepared in a period which Hume implicitly characterized in a similar manner.[5] Whereas, the first volume of the *Treatise of Human Nature* was written at a time when "personal identity" had become "so great a question in philosophy," especially in England, "where all the abstruser sciences [were] studied with a peculiar ardor and application."[6]

2. Arrangement. Concerning arrangement, the writers on Hume, in accordance with their usual cus-

[1] Burton, *Life*, II, pp. 79–81; *cf.* Tytler, *Memoirs of the Life and Writings of Henry Home of Kames*, I, pp. 170–173.

[2] III, p. 40.

[3] *Cf.* Burton, *Life*, I, pp. 62, 63, 273.

[4] II, p. 234.

[5] *Cf.* IV, pp. 4–12.

[6] I, p. 539; *cf.* p. 308.

tom, differ diametrically in opinion. Burton states:[1] "It has been generally and justly remarked, that the Treatise is among the least systematic of philosophical works—that it has neither a definite and comprehensive plan, nor a logical arrangement." On the other hand, Adamson declares:[2] "The course of Hume's work follows immediately from his fundamental principle, and the several divisions of the Treatise, so far as the theoretical portions are concerned, are but its logical consequences." While the first view here expressed is inaccurate, and the second is inadequate; yet in the former, there is an element of truth, as in the latter, there is an implication of error. The correct view, as indeed one might expect, lies about midway between the two extremes.[3] The Treatise, as a whole, is systematically arranged, but detailed portions are not. If the work be viewed in its entirety methodical arrangement, according to a definite plan, is clearly manifest. Thus Part I gives an account of the contents of the individual mind, of impressions and ideas, or of what Hume calls "the elements" of the philosophy of human nature.[4] Part II treats of the ideas of space and time, and Part III deals with the idea of cause and effect; that is, Part II may be

[1] *Life*, I, p. 66; *cf.* Ritchie, *Life of Hume*, p. 305; Meinong, *Hume-Studien*, II, p. 27; Knight, *Hume*, p. 28.

[2] *Ency. Brit.*, ninth ed., art. *Hume*, p. 352; *cf.* Jacob, *David Hume über die menschliche Natur*, I, p. 532; Brede, *Der Unterschied d. Lehren Humes im Treatise u. im Inquiry*, p. 2, n.

[3] *Cf.* Grimm, *Zur Gesch. d. Erkenntnisproblems*, pp. 573–576; Jodl, *Leben u. Phil. D. H.*, p. 200; Pfleiderer, *Empirismus u. Skepsis in D. H. Phil.*, p. 132.—Grimm's treatment of this question is the best that has yet appeared.

[4] I, p. 321.

said to treat of the abstract element of human knowledge, while Part III deals with the concrete element. Finally, Part IV explains the ideas of self and substance, exhibiting the logical results of the previous treatment, and expressing the relation of the knowing consciousness to known objects; that is, it investigates the relation of knowledge to the supposed self and external things, the relation of impressions and ideas as cognitive to impressions and ideas as cognized.[1]

There is also a gradual transition between the principal divisions of the work. The last section of Part I deals with general ideas, and prepares the way for the discussion of the ideas of space and time in Part II. The last section of Part II, treating of the ideas of existence and external existence, serves as an introduction to Part III.[2] And the last section of Part III, "Of the Reason of Animals," besides containing an argument in confirmation of the truth of Hume's system, as thus far presented, is at the same time a preparation for what follows in Part IV. When one descends to further particulars, however, one finds that the minor divisions of the book are often ill-arranged, both in their relations to one another, and in their internal structure. At one time the reasoning is fragmentary; at another, it is long drawn out, stated in different ways, or repeated to weariness. Not only are the arguments disproportioned, but essential matter is sometimes mingled with non-essential; trivial paradoxes are occasionally introduced, or terms are used with varying meanings, until the central thought becomes almost completely ob-

[1] *Cf.* Adamson, *Ency. Brit.*, art. *Hume*, p. 352.

[2] I, p. 369.

secured by attendant circumstances, or inextricably confused through perplexing ambiguities.

Since the later work is, in some measure, a recast of the earlier, the general order of discussion is similar in both. But inasmuch as portions of the Treatise are omitted in the Inquiry, and new material is introduced, while the resulting treatment is clearer, freer from ambiguities and contradictions, the arrangement of the later work is less systematic than that of the earlier. The points of transition, formerly observable, do not appear in the Inquiry. Abstract ideas are treated here only in the last section, and then merely incidentally. The ideas of existence and external existence are scarcely mentioned. And the section on the reason of animals is entirely cut off from related topics by new material. These changes, except that arising from the introduction of new matter—a subject on which more will be said presently,—may be accounted for by the abridged form of the later work. But then the question immediately arises, Why was the later work abbreviated? This inquiry brings us to the next subject for discussion, and will be dealt with in the remaining part of the present section.

II. The General Relations of the Treatise to the Inquiry with regard to Subject-matter. The Inquiry is mainly a restatement, in abbreviated form, of certain portions of the Treatise, Parts I and III. To Henry Home, in 1737, Hume wrote:[1] "I am sorry I am not able to satisfy your curiosity by giving you some general notion of the plan upon which I proceed. But my opinions are so new, and even some terms

[1] Burton, *Life*, I, p. 62.

that I am obliged to make use of, that I could not propose, by any abridgment, to give my system an air of likelihood, or so much as make it intelligible. It is a thing I have in vain attempted already, at a gentleman's request in this place, who thought it would help him to comprehend and judge of my notions, if he saw them all at once before him." The difficulty here referred to may be the cause why Hume, instead of giving a summary or outline of his philosophy, in the Inquiry, presents a full statement of some subjects, gives an abridgment of others, and omits others entirely. Thus Parts I and III are largely rewritten. But the only division corresponding to Parts II and IV is section xii. And this section, although it deals to some extent with nearly all the topics that are treated in the corresponding portions of the earlier work, is by no means an adequate abstract or synopsis of them.

It is interesting to learn from a letter of Hume, in 1755, to his publisher, Millar,[1] that Part II of the Treatise was rewritten. The monograph, however, never appeared. As a reason for not publishing this revision, Grose[2] suggests that "perhaps the author despaired of the subject being popular." Other writers on Hume have also expressed their opinions on this question. But in general, their views are mere conjectures, groundless as they are various. The only reason positively known, why this revision of Part II was not published, is that given by the author himself in a letter to Strahan:[3] "I intended to print

[1] Burton, *Life*, I, p. 421.

[2] III, p. 60.

[3] Hill, *Letters of David Hume to William Strahan*, p. 230.—For many years it was supposed that Hume's letters to

four Dissertations," he says, "the natural History of Religion, on the Passions, on Tragedy, and on the metaphysical Principles of Geometry. I sent them up to Mr. Millar; but before the last was printed, I happened to meet with Lord Stanhope, who was in this country, and he convinced me, that either there was some defect in the argument or in its perspicuity; I forget which; and I wrote to Mr. Millar, that I would not print that Essay." Were one controversially inclined, one might now undertake to show that the former of the two reasons, here mentioned, was the chief one why the "Metaphysical Principles of Geometry" was not printed. For defect in perspicuity, although a sufficient reason why the dissertation should not appear as a part of the Inquiry, is not a satisfactory explanation why, when in the form of an essay, it should have been suppressed for all time. It is not worth while, however, to carry the discussion of this point farther; for the fact, that the author forgot whether the defect was in the "argument" or in the "perspicuity," tends to imply that the essay was open to criticism in both these respects.

Hume also gives a hint why some important portions of Part IV were omitted in the later work. In the appendix to the Treatise[1] he confesses that, on a more strict review of the section concerning personal identity, he found himself involved in such a labyrinth, that he knew neither "how to correct" his

Strahan had been destroyed, as it was Strahan's custom not to preserve the letters which he received; *cf.* Burton, *Life*, II, p. 477, n. 2.

[1] I, pp. 558, 559; *cf.* Grimm, *Zur Gesch. d. Erkenntnisprobl ems*, pp. 580, 582.

former opinions, nor "how to render them consistent." This acknowledgment indicates that, soon after the publication of the Treatise, Hume perceived perfectly well one of the main difficulties inherent in his system. It is significant, therefore, that in the Inquiry, not merely is the question of personal identity omitted, but the other more important subjects, in the discussion of which inconsistencies or absurdities become most apparent, are also either omitted entirely, or are only incidentally referred to; for example, philosophical relations, space and time, mathematics, substance—material and spiritual—and an external world. Now all these subjects, except philosophical relations, are treated in Parts II and IV of the earlier work. The conclusion, therefore, is unavoidable, that Hume, when preparing the Inquiry for publication, being extremely anxious to have his theory of knowledge appear in a favorable light before the public, was swayed by the characteristic shrewdness of the "canny" Scotsman, and purposely omitted, or left in the background, these difficult and perplexing questions.

Some writers think that Hume omitted, in the Inquiry, his doctrine of substance lest it should prejudice the work in the eyes of the public;[1] and others assert that he omitted the doctrine of personal identity, lest it should shock too severely religious sentiment.[2] The former of these views may contain an element of truth, but the latter is entirely erroneous. Hume was much more considerate toward the religious sentiments of the people when preparing the Treatise

[1] *Cf. Selby-Bigge, Hume's Enquiries,* Introd.

[2] *Cf.* Windelband, *History of Philosophy,* p. 474, n. 1.

for publication, than when writing the Inquiry. On the former occasion, he withdrew certain obnoxious portions, including the argument against miracles, in order that the work might give "as little offence as possible;"[1] but on the latter, he had no such prudential scruples when dealing with religious questions.[2] It is true, Hume had, in general, much regard for public opinion; but he rarely manifested any concern for what he called "superstition," or religious bigotry.

The omissions mentioned above are partly counterbalanced by the introduction of two new sections—x and xi—which deal with miracles and the practical consequences of natural religion, and by the transferrence of the discussion on liberty and necessity from the second book of the *Treatise of Human Nature* to the Inquiry, where it follows immediately the treatment of necessary connection, and forms a complete section by itself, section viii. These additions to the later work serve to illustrate the practical application of Hume's theoretical principles within the sphere of morality and religion. And there can be little doubt that one of the chief aims of the author in making these changes was to induce people to examine his philosophical system. He hoped, by the publication of the Treatise, to obtain much fame on account of the originality, boldness, and practical tendencies of his philosophy of human nature.[3] Naturally, therefore, he was greatly disappointed when the book failed to make a noise in the world. But he

[1] Burton, *Life*, I, pp. 63, 64.

[2] *Cf. My Own Life;* Burton, *Life*, I, p. 239.

[3] *Cf. My Own Life;* Burton, *Life*, I, pp. 64, 108.

resolved to profit by his adverse experience. Soon after the publication of the first two volumes, he sent to Hutcheson, for perusal, the manuscript of the third volume, the *Treatise of Morals.* And in the course of his reply to Hutcheson's suggestions and friendly criticism he significantly observed:[1] "I have many other reflections to communicate to you; but it would be troublesome. I shall therefore conclude with telling you, that I intend to follow your advice in altering most of those passages you have remarked as defective in point of prudence; though, I must own, I think you a little too delicate. Except a man be in orders, or be immediately concerned in the instruction of youth, I do not think his character depends upon his philosophical speculations, as the world is now modelled; and a little liberty seems requisite to bring into the public notice a book that is calculated for few readers." Some years later, when writing the Inquiry, the author astutely availed himself of "a little liberty," in order to bring the book into public notice.

It has been commonly thought that Hume manifested one of the few weak points in his character by making a high bid for that notoriety for which his soul craved, when in the Inquiry he introduced the sections dealing with miracles, providence, and immortality.[2] But the author of the *Treatise of Human Nature,* in this criticism of popular religious conceptions, had a much deeper object in view than the attainment of mere notoriety. He wished to call the attention of readers to the importance of his new

[1] Burton, *Life,* I, p. 114.

[2] *Cf. Selby-Bigge, Humes Enquiries,* Introd.; Huxley, *Hume,* p. 11; III, p. 36.

system. That the scheme was well conceived, and that it was eminently successful, later philosophical discussion has most abundantly testified.

The transference of the section on liberty and necessity from the second book of the *Treatise of Human Nature* to its appropriate place in the Inquiry —directly after the section on necessary connection— may have been prompted somewhat by logical considerations. But it seems indubitable, because of the new mode of treatment which the subject received, that the change was made chiefly for the purpose of stimulating public curiosity. For the most important alteration, in the later presentation, is the greater prominence given to the difficulties that, on any theory of the will, whether deterministic or libertarian, arise in the sphere of philosophy of religion. This discussion, along with those on miracles, providence, and immortality, Hume undoubtedly thought would at once arouse the indignation of "the zealots." But he was again grievously disappointed. In the Autobiography he expressed his mortification to find, on his return from Italy, "all England in a ferment, on account of Dr. Middleton's Free Enquiry," while his own performance was "entirely overlooked and neglected." Yet in the long run, the author of the philosophy of human nature was not far wrong in his calculation. He had accurately gauged some of the fundamental qualities of mankind. In a few years, his bookseller informed him that his "former publications (all but the unfortunate Treatise) were beginning to be the subject of conversation," and that new editions of them were demanded.[1] "Answers

[1] *My Own Life.*

by Reverends, and Right Reverends, came out two or three in a year"; and Hume found, "by Dr. Warburton's railing, that [his] books were beginning to be esteemed in good company." Since then, no writer on miracles has neglected to mention the great skeptic; while to refute him has been the ardent aim and earnest endeavor of every Christian apologist.

§ 5. *Mode of Procedure.*—It is now only necessary to add a word with regard to method, in order to conclude this introduction. I propose to proceed topically, treating each subject of importance separately, and following as closely as possible the order of the earlier work. In the topical treatment I shall state, first, the doctrine of the Treatise on the point in question; secondly, the position of the Inquiry on the same subject, noting the differences of view that may exist, whether in the way of omission, addition, or modification; and thirdly, indicate, as far as possible, the reasons for the changes that appear in the later work.

CHAPTER II.

HUME'S AIM, SUBJECT-MATTER, AND METHOD.

§ 6. *Hume's Aim.*—We now enter upon the subject proper of our investigation, viz., the relation of Hume's earlier philosophical principles to his later, as they are set forth respectively, in the Treatise, and in the Inquiry. The first question to determine is that of aim. Accordingly, in the present chapter, we shall compare the introduction to the *Treatise of Human Nature* with the first section of the Inquiry. Throughout, it will be borne in mind, of course, that the prefatory remarks in the Treatise are an introduction to the science of man,[1] while the first section of the Inquiry is an introduction to only one part of the science of man, the theoretical part. Much light will thus be thrown on some of the differences that exist between these two forms of statement, that is, between the general introduction to the science of man, and the introduction to the theoretical part of the science of man.[2]

In the advertisement to the earlier work, Hume said that his "design" was sufficiently explained in the introduction. Nevertheless, his readers have never arrived at any general agreement regarding what his design, or purpose was. Thus Mackintosh asserts:[3] "[Hume] aimed at proving, not that nothing

[1] I, p. 303.

[2] *Cf.* p. 7, above.

[3] *Dissertation on the Progress of Ethical Philosophy*, p. 137; *cf.* Reid's *Works*, I, p. 183.

was known, but that nothing could be known;—from the structure of the understanding to demonstrate, that we are doomed for ever to dwell in absolute and universal ignorance.'' Priestley:[1] ''According to [Hume's] own very frank confession, his object was mere *literary reputation.* It was not the *pursuit of truth,* or the advancement of virtue or happiness.'' Stirling:[2] ''Hume's final aim, of course, is the destruction of what is to him superstition.'' Huxley:[3] ''The aim of the *Kritik der reinen Vernunft* is essentially the same as that of the *Treatise of Human Nature,* by which indeed Kant was led to develop that critical philosophy with which his name and fame are indissolubly bound up.'' Stewart:[4] ''[Hume's] aim is to establish a universal skepticism, and to produce in the reader a complete distrust in his own faculties.'' It is unnecessary to multiply examples further. Diversity of view on this question is doubtless due as much to objective differences in the two accounts of Hume's philosophy, as to subjective differences in the various interpreters.

The key to the solution of this problem is to be found only in Hume's life. From his ''earliest infancy'' he exhibited a strong inclination to books and letters. When a youth he amused himself in leisure hours writing on psychological, ethical, or literary subjects.[5] At eighteen, he experienced for a few

[1] *Letters to a Philosophical Unbeliever,* p. 125; *cf.* Morris, *British Thought and Thinkers,* p. 238.

[2] *Mind,* Vol. IX, p. 533; *cf. Revue Philosophique,* Vol. XII, p. 121.

[3] *Hume,* p. 58; *cf.* Pfleiderer, *Empirismus u. Skepsis,* p. 109.

[4] *Collected Works,* I, p. 437; *cf.* McCosh, *Hist. of Scottish Phil.,* pp. 153, 154.

[5] Burton, *Life,* I, p. 13.

months the ecstasy of "philosophical conversion." "There seemed to be opened up to me," he writes,[1] "a new scene of thought, which transported me beyond measure, and made me, with an ardor natural to young men, throw up every other pleasure or business to apply [myself] entirely to it." Hume now felt that he had a message to deliver to the world. He would work a revolution in philosophy or moral science, similar to that which Bacon had effected in physical science. He resolved on the plan of writing a complete system of philosophy, as Spencer did a little more than one hundred years later. This project he also carried out, although—since the Treatise did not "meet with success"—not without some modifications, and not quite so thoroughly as he had at first intended. For instead of the volumes on politics and criticism, which were to form part of the *Treatise of Human Nature*, there appeared only the moral and political essays, two essays on religion, and a few fragmentary pieces.

Like every philosopher who has a new doctrine to propound, Hume discovered that the current theories of knowledge were exceedingly defective.[2] At the age of twenty-three he wrote:[3] "Every one who is acquainted either with the philosophers or critics, knows that there is nothing yet established in either of these two sciences, and that they contain little more than endless disputes, even in the most fundamental articles." In the introduction to the Treatise, he expresses himself no less strongly. Regarding philosophy, he says:[4] "Principles taken upon

[1] *Op. cit.*, I, p. 31.

[2] *Cf.* Kant, *Kritik d. r. Vernunft*, Vorrede.

[3] Burton, *Life*, I, p. 31.

[4] P. 305.

trust, consequences lamely deduced from them, want of coherence in the parts, and of evidence in the whole, these are everywhere to be met with in the systems of the most eminent philosophers, and seem to have drawn disgrace upon philosophy itself." And concerning the sciences, he asserts:[1] "Even the rabble without doors may judge from the noise and clamor, which they hear, that all goes not well within. There is nothing which is not the subject of debate, and in which men of learning are not of contrary opinions. The most trivial question escapes not our controversy, and in the most momentous we are not able to give any certain decision."

Hume now proposes to improve this unfortunate state of things by means of his philosophy of human nature, or, as he frequently calls it, the science of man. In a similar manner had Bacon, Locke, Descartes, and many other thinkers hoped, with the aid of philosophy, to advance the sciences and extend knowledge. "I cannot forbear," says Hume,[2] "having a curiosity to be acquainted with the principles of moral good and evil, the nature and foundation of government, and the cause of those several passions and inclinations, which actuate and govern me. . . . I am concerned for the condition of the learned world, which lies under such a deplorable ignorance in all these particulars. I feel an ambition to arise in me of contributing to the instruction of mankind, and of acquiring a name by my inventions and discoveries." All the sciences have a definite relation to human nature; in short, human nature is their "capital or center."[3] "There is no question of importance, whose

[1] P. 305. [2] P. 550. [3] P. 307.

decision is not comprized in the science of man; and there is none, which can be decided with any certainty, before we become acquainted with that science." If, therefore, we obtain a mastery of the science of man, "we may extend our conquests over all those sciences, which more intimately concern human life, and may afterwards proceed at leisure to discover more fully those, which are the objects of mere curiosity."[1] "In pretending, therefore," he continues, "to explain the principles of human nature, we in effect propose a complete system of the sciences, built on a foundation almost entirely new, and the only one upon which they can stand with any security." Although Hume here makes extravagant claims for his philosophy, there cannot be any doubt with regard to his meaning. He will write a treatise that will include the sciences of *"Logic, Morals, Criticism, and Politics"*; a treatise that will not only serve as a handmaid to all the other sciences, but that will at the same time comprehend "almost everything, which it can any way import us to be acquainted with, or which can tend either to the improvement or ornament of the human mind."[2] For he believes he has discovered the "new medium,"[3] by which truth may be established.[4] This thought not only implied a brilliant generalization, but also indicated, in a striking manner, that practical turn of mind so characteristic of the philosophers of Scotland.

In the Inquiry, Hume's aim, on a cursory examina-

[1] P. 307. [2] *Ibid.* [3] Burton, *Life*, I, p. 31.

[4] *Cf.* Aikins, *The Philosophy of Hume*, p. 35; McCosh, *Hist. of Scottish Phil.*, pp. 153, 154; Petzholtz, *Die Hauptpunkte d. H. Erkenntnislehre*, p. 8; Falckenberg, *Hist. of Modern Phil.*, p. 221.

tion, seems to be similar to that of the *Treatise of Human Nature*.[1] In the first section, the author regards knowledge as being in the same imperfect condition as formerly. The "abstruse philosophers," he says,[2] "think it a reproach to all literature, that philosophy should not yet have fixed, beyond controversy, the foundation of morals, reasoning, and criticism; and should for ever talk of truth and falsehood, vice and virtue, beauty and deformity, without being able to determine the source of these distinctions." Hume does not make such large claims, however, on behalf of his philosophy of human nature as he did in the earlier work, probably because of disappointment at the failure of the Treatise to call forth public notice.[3] As early as 1740, in a letter to Hutcheson, he said:[4] "I am apt in a cool hour to suspect, in general, that most of my reasonings will be more useful by furnishing hints, and exciting people's curiosity, than as containing any principles that will augment the stock of knowledge, that must pass to future ages." Even in passages of the Treatise, he manifested an apprehension that he would not obtain the degree of success he hoped for. He did not expect to make "many proselytes" to his view of belief;[5] he did not doubt that his sentiments on necessary connection would be treated by many of his readers as "extravagant and ridiculous";[6] finally, after bewailing "the wretched condition, weakness, and disorder of

[1] *Cf.* Pillon, *Psychologie de Hume*, p. II.

[2] P. 4.

[3] *Cf.* Burton, *Life*, I, pp. 105, 108; Hume, *Hist. of England*, VII, p. 359.

[4] Burton, *Life*, I, p. 118.

[5] P. 416.

[6] Pp. 461, 468.

the faculties," together with "the impossibility of amending or correcting" them, he made the doleful confession:[1] "This sudden view of my danger [of perishing on the barren rock, on which I am at present], strikes me with melancholy; and as it is usual for that passion, above all others, to indulge itself; I cannot forbear feeding my despair, with all those desponding reflections, which the present subject furnishes me with in such abundance." Hume, no doubt, did not mean all these forebodings to be taken literally. Yet, since the reception given the Treatise justified his fears to the full, it is not surprising to find a tone of dejection in the introduction to the Inquiry. "Abstruse thought and profound researches," he says,[2] "[nature prohibits], and will severely punish, by the pensive melancholy which they introduce, by the endless uncertainty in which they involve you, and by the cold reception which your pretended discoveries shall meet with, when communicated."

Nevertheless, as before, Hume thinks that the science of man "has its peculiar merit," and that it will contribute to "the entertainment, instruction, and reformation of mankind."[3] After distinguishing theoretical philosophy from practical, he states that the theoretical philosophers "think themselves sufficiently compensated for the labor of their whole lives, if they can discover some hidden truths, which may contribute to the instruction of posterity."[4] He asserts that, by employing the maxim of the priority of

[1] P. 544; *cf.* Burton, *Life*, I, p. 105.
[2] P. 6.
[3] P. 3.
[4] P. 4; *cf.* IV, p. 253.

impressions to ideas, "we may reasonably hope to remove all disputes, which may arise," concerning the nature and reality of ideas.[1] And he maintains that the science of man will facilitate the advancement of all other sciences; for theoretical philosophy is subservient to practical. The latter without the former, "can never attain a sufficient degree of exactness in its sentiments, precepts, or reasonings"; and a spirit of accuracy carries "every art or profession" nearer its perfection, rendering it "more subservient to the interests of society." Hence, the genius of philosophy gradually diffuses itself "throughout the whole society," and bestows "a similar correctness on every art and calling."[2]

Thus far, although Hume, for the reason already mentioned, is not so sanguine as formerly in his manner of expression, there is no difference noticeable between the aim of the *Treatise of Human Nature* and the aim of the Inquiry. Presently, however, a new aspect of the question emerges. It is objected, in the later work, that "metaphysics," that is, "abstruse philosophy," is not "properly a science," and that "a considerable part of metaphysics" arises either from "the fruitless efforts of human vanity," or from "the craft of popular superstitions."[3] To this the author answers that for the same reason the study of human nature is the more necessary. "The only method of freeing learning, at once, from these abstruse questions, is to inquire seriously into the nature of human understanding, and show, from an exact analysis of its powers and capacity, that it is by no means fitted for such remote and abstruse subjects.

[1] P. 17. [2] Pp. 6, 7; *cf.* p. 24. [3] P. 8.

We must submit to this fatigue, in order to live at ease ever after: And must cultivate true metaphysics with some care, in order to destroy the false and adulterate."[1] And he concludes the section with the hope that he may be able to "undermine the foundations of an abstruse philosophy, which seems to have hitherto served only as a shelter to superstition, and a cover to absurdity and error."

Because of the remarks just quoted, and on account of changes in the subject-matter of the Inquiry, many of Hume's interpreters have thought that the aim of the later work is essentially different from that of the earlier. Thus Aikins asserts:[2] "The investigation of Human Nature was undertaken in the hope that through a knowledge of its principles a foundation for all the sciences could be laid."—"The Inquiry, on the other hand, was written after the bitterly disappointing reception given the Treatise had quenched much of Hume's zeal for philosophy and driven him to work in other fields of literature. . . . Now not only was he addressing a popular audience, but he had lost enthusiasm for his subject, and the Enquiry concerning Human Understanding suggests more than a suspicion that Hume's interest in it was more anti-theological than psychological. The introduction speaks, not of the foundation to be laid for all the sciences by the study of human nature, but of popular superstitions to be driven from their shelter among the brambles of metaphysics."[3] Brede[4] and some other critics have expressed a similar view on this question.

[1] P. 9. [2] *Phil. of Hume*, p. 35. [3] *Ibid.*, p. 49.
[4] *Der Unterschied d. Lehren H.*, pp. 45 ff.; *cf.* Seth, *Scottish Philosophy*, p. 69.

Respecting the change in subject-matter a general explanation was given in the preceding chapter;[1] further reference to the topic will be made presently.[2] It should be observed now, that those writers who profess to perceive a difference in the aim of the two works neglect to note that, in the concluding section of the Treatise, Hume supplements the statement of his aim given in the general introduction. The aim in the introduction, as previously remarked,[3] is the general aim of the whole work, the *Treatise of Human Nature;* that aim as modified in the last section of Book I is the particular aim of the Treatise, the book with which we are dealing. In order, therefore, to obtain a correct idea of the aim of the Treatise, it is necessary to take account of the concluding section. Here Hume, after stating that the sentiments of curiosity and ambition are "the origin" of his philosophy, asserts:[4] "But even suppose that this curiosity and ambition should not transport me into speculations without the sphere of common life, it would necessarily happen, that from my very weakness I must be led into such inquiries. It is certain, that superstition is much more bold in its systems and hypotheses than philosophy; . . . Since, therefore, it is almost impossible for the mind of man to rest, like those of beasts, in that narrow circle of objects, which are the subject of daily conversation and action, we ought only to deliberate concerning the choice of our guide, and ought to prefer that which is safest and most agreeable. And in this respect I make bold to recommend philosophy, and shall not scruple to

[1] Pp. 16–22. [2] Pp. 36–41. [3] P. 24.
[4] Pp. 550, 551; *cf.* IV, p. 406.

give it the preference to superstition of every kind or denomination." In these sentences, it is true, the author does not explicitly state that one of the objects of the Treatise was to overthrow superstition. Nevertheless, such an object is evidently implied, both here and in other passages of the book. Thus he says that, "if we are philosophers, it ought only to be upon skeptical principles, and upon an inclination, which we feel to the employing ourselves after that manner."[1]

It may be objected, perhaps, that the aim of the later work still appears to be somewhat different from that of the earlier. For in the Treatise[2] Hume repeatedly repudiates metaphysics, while in the first section of the Inquiry he seems to advocate the pursuit of this study. "But may we not hope that philosophy," he asks,[3] "if cultivated with care, and encouraged by the attention of the public, may carry its researches still farther, and discover, at least in some degree, the secret springs and principles, by which the human mind is actuated in its operations?" The rejection of a subject of examination, he continues, on the ground that it does not lie "within the compass of human understanding, "is not desirable; nor ought to be embraced too rashly." The difference here pointed out, however, is only apparent. Hume, in the Inquiry,[4] disavows all truly metaphysical investigations as fully as in the Treatise. When he expresses the hope that philosophy may discover, "at least in some degree, the secret springs and principles, by which the mind is actuated in its opera-

[1] P. 550; *cf.* pp. 308, 309; IV, pp. 27, 28.
[2] Pp. 321, 392, 460. [3] Pp. 11, 12.
[4] *Cf.* pp. 8, 13, 27, 28, 30, 66, 133.

tions,'' he does not expect to discover the nature of ultimate or metaphysical principles, but only to arrive at an explanation of such principles as ''custom,'' or ''the association of ideas.'' These principles he occasionally speaks of as ultimate or original qualities of human nature, and he tries—''at least in some degree''—to account for the mode of their operation.[1]

The fact that Hume, in the introduction to the Treatise, reprobates metaphysics, and yet in the first section of the Inquiry argues at considerable length in defence of metaphysics, is easily explained. He uses the term in two very different senses. There is the true metaphysics, and the false. The former merely means ''profound reasonings,'' or ''every kind of argument, which is any way abstruse'';[2] while the latter means rationalistic, or transcendental speculations. Rationalistic speculations Hume universally condemns; but ''profound reasonings'' he defends in the Treatise as well as in the Inquiry.[3] Several of the arguments which he adduces in the later work, in favor of philosophical studies, appeared in the earlier, either in the general introduction, or in the concluding section. For instance, in the introduction to the Inquiry he commends the study of ''metaphysics'' as a means of ''safe and harmless pleasures''; but in the conclusion to the Treatise he asserted:[4] ''These sentiments [of curiosity and ambition] spring up naturally in my present disposition; and should I endeavor to banish them, by attaching

[1] *Cf.* I, pp. 321, 330; IV, p. 37.
[2] I, p. 306; IV, p. 6.
[3] *Cf.* I, pp. 306–309; IV, pp. 6–9.
[4] P. 550.

myself to any other business or diversion, I *feel* I should be a loser in point of pleasure; and this is the origin of my philosophy."

While it is readily admitted that the references, in the later work, to the overthrow of superstition, are more definite and emphatic than are those in the earlier; it must, at the same time, be pointed out that they seem to have been made but incidentally. Hume, in the Inquiry, when still grieving over the sad fate of the Treatise, entered on a special defence of metaphysics, or "profound reasonings." In the course of the discussion it is asserted, as a serious objection to these studies, that "a considerable part of metaphysics" arises either from "the fruitless efforts of human vanity," or from "the craft of popular superstitions." Whereupon, the author naturally replies that there is then so much the more reason why "true" metaphysics should be cultivated with care, in order that superstition, or "the false and adulterate," may be destroyed. That the defence of metaphysics is fuller and more systematic in the Inquiry than in the Treatise, is doubtless due largely to the unfavorable reception accorded to the earlier work. Besides, as has been remarked, the first section of the Inquiry is an introduction to the theoretical part of the science of man, while the corresponding section of the *Treatise of Human Nature* is an introduction to the science in general; and this, Hume probably thought, did not require any special defence or apology.

The aim of the Treatise, therefore, is found upon closer examination to be essentially the same as that of the Inquiry, viz., to explain the nature or char-

acter of human knowledge, through an investigation of the contents of the individual mind, in order to advance science on the one hand, and to overthrow "superstition" and rationalistic philosophy on the other.[1] It is true, the aim is stated in a different manner in the two works; but for this difference, reasons have already been assigned.[2]

In all probability, however, it will still be objected that the aim of both works can hardly be the same, since the Inquiry contains much new material of a polemical character. The force of the objection disappears at once, when one reflects that Hume had already published part of this material in Book II of the *Treatise of Human Nature*,[3] and that he intended to publish the remainder—all, or at least the larger portion—in Book I, but withdrew it at the last moment, lest it should give "too much offense" as the world was then "disposed."[4] If it be contended further, that the aim of both works is not identical, since much old material is omitted in the Inquiry; the obvious reply is, that these omissions do not necessarily affect Hume's theory of knowledge. Moreover, the essential aim of an abridged work may be exactly the same as that of the complete work. But finally, it will no doubt be said that the character and tone of the two books are fundamentlly different, and that the aim must, therefore, be different also. The premises in this case are admitted, but not the conclusion—except in part, and here is where the ground

[1] *Cf.* Pillon, *Psychologie de Hume*, p. iii.
[2] Pp. 28–31, above.
[3] *Cf.* p. 22, above.
[4] Burton, *Life*, I, pp. 63, 64.

for debate really lies. A few words of explanation, however, will make the matter clear.

In writing a book, an author may be said to have, in general, two kinds of aims, intrinsic or universal, and extrinsic or individual. The intrinsic aim is the desire of the writer to advance knowledge, or promote truth, happiness, etc., by means of the principles or ideas expressed. The extrinsic, individual, or accidental aims are various, such as desire for money, fame, notoriety, public good-will, recreation, personal pleasure, etc. At one time the intrinsic aim may predominate, at another, the extrinsic. Hume, when writing each work, was undoubtedly influenced by both these classes of motives. And whether the intrinsic or the extrinsic aim predominated, when he was writing the Inquiry, cannot easily with positive certainty be determined. It is recognized, of course, by all competent critics, that in the Treatise the intrinsic aim predominates. But on the other hand, it may be conceded that in the Inquiry the extrinsic aims, formally at least, appear to preponderate.

The above admission will perhaps be regarded as a virtual surrender of the point in issue. Such, however, it is by no means intended to be. It is made merely for the sake of clearness and precision, constituting as it does a new basis for further discussion. Hume's primary aim in the Treatise, as has been repeatedly stated, was the presentation of a true theory of knowledge which would be of service to science, and which would help to overthrow rationalistic metaphysics. And his primary aim in the Inquiry, as has now been acknowledged, was, possibly, external conditions or individual circumstances. But from

these propositions to draw the conclusion that the aim of the Inquiry is essentially different from that of the Treatise, before examining at all the ground of the difference in the statement of these two aims, would not only be premature, but unjustifiable. The difference in aim, as above conceded, between the two works, is really but apparent, and admits of easy explanation. One of Hume's chief objects, in writing the Inquiry, was to call the attention of the public to the system of philosophy expounded in the Treatise. In a letter to Home, in 1742, he said that there was a demand for the Essays—Moral and Political. "I am . . . told that Dr. Butler has everywhere recommended then; . . . They may prove like dung with marl, and bring forward the rest of my philosophy, which is of a more durable, though of a harder and more stubborn nature."[1] Then he wrote the Inquiry, partly at least, for the purpose of helping the Essays to bring forward the Treatise. Hence this motive, although nominally extrinsic, is properly speaking intrinsic, since Hume's ultimate object was to carry the reader beyond the abridged account of his system to the complete exposition. And it must finally be concluded that Hume, when writing the Inquiry, was actuated more by intrinsic than by extrinsic motives; for in reality the former were paramount, although it may seem that formally the latter predominated.

Furthermore, it may be observed that the primary intrinsic aim of both works is exactly the same, viz., the presentation of a true theory of knowledge which might be of service to science,[2] and which would sub-

[1] Burton, *Life*, I, p. 143.

[2] *Cf.* Orr, *David Hume*, p. 85.

vert rationalistic metaphysics. That this aim is sought in a different way in each book is due to the different circumstances under which the books were written; and from these changes in circumstances there naturally resulted corresponding changes in the extrinsic aims. Hume gave a detailed and abstract account of his theory of knowledge in the Treatise, because he expected to establish a great philosophical reputation by means of the work. In this object he had apparently failed. Then he appealed from the tribunal to the forum, and presented in a popular manner the more easy and interesting parts of his system. Also, before publishing the Treatise, he withdrew some portions of it and modified others, in order that it might give "as little offence as possible," because he intended to present a copy to Dr. Butler, and hoped to obtain the applause of the learned world. The learned world, however, took but little notice. Hence, in the Inquiry, he restored these omitted portions, and expressed his views on religious questions more freely and less charitably. He thought thereby to rouse the learned world up a little, and after a while, indeed, he succeeded. Hume had now attained to a position such that hostility from theological quarters tended rather to advance his fame than to impede it. Besides, opposition from those whose good opinion one does not expect to win is often preferable to blank indifference.

In short, the inevitable conclusion is, that the intrinsic aim of both works is paramount, and also identical; but that the extrinsic aims are different. This is equivalent to saying that Hume's real object, in his philosophical writings, was ever the same; but

that the means which he adopted for the realization of this end varied at different times, according as the circumstances seemed to require. This view, it may be added, is in perfect accord with the character of the man. Though firm in his rights, steadfast in his principles, inflexible in his purposes, Hume was essentially a child of experience, ever willing to learn wisdom from the eternal laws of nature, and to conform, in accidentals, to the ways of the world. The distinction just made between Hume's intrinsic and extrinsic aims, although in itself simple enough, is one that has never before been made. Yet by means of it, the obscurity which has so long prevailed upon the question, whether the aim of the Inquiry is the same as that of the Treatise, is entirely removed.

§ 7. *Hume's Subject-matter.*—By subject-matter here is meant, not the particular topics which are dealt with in the Treatise and Inquiry, but rather Hume's philosophy, in its general characteristics, as it is presented in these two works. The philosophy of human nature, the science of man, or moral philosophy—all of which terms the author uses synonymously—comprises all the more important sciences which deal with human life or conduct. It is divided into theoretical philosophy, and practical;[1] or more specifically, into logic, morals, politics, and criticism.[2] Both these modes of classification are given in the Treatise, but only the former in the Inquiry, probably because in his later writings Hume did not intend to present his complete system. The science of man is, therefore, on the one hand, a psychological account

[1] IV, p. 3; *cf.* II, p. 235.
[2] I, pp. 303, 307.

of human knowledge, and on the other, a scientific treatment of motives and conduct, based on the theory of knowledge previously expounded. As already stated,[1] it is only the first of these divisions of the science that comes within the scope of this work.

The philosophy of human nature, as contained in the Treatise and Inquiry, rests on two fundamental principles, the sensational origin of ideas, and the representational theory of knowledge. Hume professes to establish the validity of the former principle by means of proofs;[2] but the latter he simply assumes, accepting it without question from preceding philosophers. He is thus, at the outset of his speculations at least, an empiricist, and an idealist. While he is a phenomenalist, he does not hold consistently to either the cruder or the finer form of the hypothesis of cosmothetic idealism. Occasionally he speaks as if knowledge were a *tertium quid* interposed between the mind and the external object, but again, as if it were merely a modification of the mind itself. He accepts implicitly Locke's definition of knowledge—the perception of the agreement or disagreement of two ideas. Hence he is equipped with what he regards as the only true criterion of certainty.[3] And since he assumes that the only objects of knowledge are states of consciousness, or impressions, ideas, and relations, he regards the science of man as a propaedeutic to all the other sciences. Of course, Hume does not always hold consistently to his assumption respecting the subjectivity of knowledge. He conforms himself,

[1] P. 4. [2] *Cf.* p. 51, below.

[3] *Cf.* I, pp. 311, 324, 371; IV, pp. 13, 51, 124, 125.

sometimes consciously, sometimes unconsciously, to "the manner" of thinking and speaking with "the vulgar."[1] It may be further noted that the Treatise and Inquiry contain two very important, and at the same time different elements, one logical, the other psychological. The logical element is negative in tendency, and professes to prove, from an examination of the human understanding, that certain supposed kinds of knowledge—for example, metaphysics—are impossible. The psychological element, on the other hand, is positive in tendency, and undertakes to show, in a similar manner as before, that certain kinds of knowledge—for example, "a mental geography"—are possible. It is sufficient to remark here that both these elements, as well as the conflict between them, stand out more prominently in the Treatise than in the Inquiry. The significance of this difference will be dealt with later.[2]

There has been considerable discussion on the question, whether Hume was perfectly sincere in adopting from Locke and Berkeley the fundamental principles of his system. Mamiani[3] affirms that it is a great misconception to think that the author of the Treatise was serious. And Hamilton[4] asserts that Hume merely took up the conclusions of his predecessors, without indorsing them, and demonstrated the impossibility of establishing a philosophical system on a theory of pure empiricism. On the other hand,

[1] I, pp. 491, 499; IV, p. 29 n.

[2] Pp. 117–125; 127–132; 299–304.

[3] Simon, *Berkeley's Principles of Human Knowledge*, App. II, p. 194.

[4] *Discussions*, p. 87.

Seth declares:[1] "There is no reason to doubt that [Hume] accepted in perfect good faith the fundamental positions from which he argued." The chief reasons for the former opinion are: (1) The absurdities into which Hume's reasoning sometimes led him; and (2) the numerous admissions which he made in the Treatise regarding the probable ineffectiveness of his arguments.[2] When these considerations, however, are weighed against the serious statements of the author in the introduction to his work, in the appendix, and in several letters,[3] there can be no doubt that the balance of evidence is in favor of the latter view.[4] Moreover, it is well known that Reid held for many years, in perfectly good faith, essentially the same philosophical presuppositions as his skeptical antagonist. In a letter to Hume in 1763, he made the following significant admission:[5] "Your system appears to me not only coherent in all its parts, but likewise justly deduced from principles commonly received among philosophers." The subsequent remark of Seth,[6] that "in refusing to look upon Hume's system as a substantive or serious account of the nature of things, we may thus fairly claim to be taking him at his own valuation," is obviously open to criticism. We cannot regard one, nor a few of Hume's statements as a just valuation of his system of philosophy, without taking account of the

[1] *Scottish Phil.*, p. 68; *cf.* Knight, *Hume*, p. 130; Mill, *Examination of Hamilton*, p. 554; Orr, *David Hume*, pp. 94–101.

[2] *Cf.* pp. 416, 461, 468, 544.

[3] Burton, *Life*, I, pp. 31, 62, 65, 108.

[4] *Cf. Mind*, Vol. XI, p. 269.

[5] Burton, *Life*, II, p. 155.

[6] *Scottish Phil.*, p. 70.

circumstances under which they were made, and without giving due consideration also to counter statements, when such, of a directly opposite nature and tendency, appear in his writings. Orr's estimation, on this question, is the true one. "There is abundant evidence," he says,[1] "that Hume regarded himself as an original discoverer in philosophy. He speaks repeatedly and complacently of 'my system.' He is confident that he has succeeded where others had failed in establishing the theory of human nature upon a just foundation."

§ 8. *Hume's Method.*—While the subject-matter of Hume's philosophy is but vaguely defined in the title of his chief work—*A Treatise of Human Nature,*—the method is clearly indicated—"An attempt to introduce the experimental method of reasoning into moral subjects." Nevertheless, different opinions have been expressed concerning it.[2] The view of Morris,[3] viz., that Hume's method is "the method of empirical psychology," derived from that of "physical inductive science," is substantially correct. For by experimental method Hume meant simply the scientific or inductive method, as this is now generally understood. It is no astonishing reflection to consider, he says,[4] "that the application of experimental philosophy to moral subjects should come after that to natural at the distance of above a whole century; since we find in fact, that there was about the same interval betwixt the origins

[1] *David Hume,* p. 104.

[2] *Cf.* Long, *Ueber Hume's Lehre v. d. Ideen u. d. Substance,* p. 37; Hodgson, *The Philosophy of Reflection,* I, p. 239.

[3] *British Thought and Thinkers,* pp. 247, 253.

[4] P. 308; *cf.* IV, p. 174.

of these sciences; and that reckoning from THALES to SOCRATES, the space of time is nearly equal to that betwixt My Lord Bacon and some late philosophers in *England,*[1] who have begun to put the science of man on a new footing, and have engaged the attention, and have excited the curiosity of the public." He thinks it evident, "that the essence of the mind being equally unknown to us with that of external bodies, it must be equally impossible to form any notion of its powers and qualities otherwise than from careful and exact experiments, and the observation of those particular effects, which result from its different circumstances and situations."[2] Hume thus includes, under the term experimental method, observation of one's own mind, and observation of other minds, human and animal, in so far as the nature of mental states and processes can be subjectively perceived, interpreted by conduct, or disclosed by a study of physiology. He employs not merely the ordinary method of empirical psychology in its two aspects, subjective and objective, but also, to some extent, the comparative, genetic, and historical methods.[3] "The experimental method" is not to be confused, of course, with the method of experimentation as now employed in what is commonly called the "new psychology." For although Hume resorted at times to experiment, in order to confirm, or to illustrate his reasoning, and

[1] "Mr. *Locke,* my Lord *Shaftsbury,* Dr. *Mandeville,* Mr. *Hutchinson,* Dr. *Butler,* etc."—The space of time is not so nearly equal as Hume would represent, being from Thales (640 or 625) to Socrates (469) 171 (or 156) years, and from Bacon to Locke 71 years.

[2] P. 308.

[3] *Cf.* I, pp. 364, 365, 468, 469.

declared that "all our perceptions are dependent on our organs, and the disposition of our nerves and animal spirits,"[1] he was after all but a worthy forerunner of the modern school of experimental psychologists.

In the Inquiry also, Hume emphasizes the experimental or scientific method. In the first section he says that "the only method of freeing learning" from abstruse metaphysical questions "is to inquire seriously into the nature of human understanding, and show, from an exact analysis of its powers and capacity, that it is by no means fitted for such remote and abstruse subjects."[2] It will be noted, however, that, in addition to this statement, he asserts:[3] "Accurate and just reasoning is the only catholic remedy, fitted for all persons and all dispositions; and is alone able to subvert that abstruse philosophy and metaphysical jargon, which, being mixed up with popular superstition, renders it in a manner impenetrable to careless reasoners, and gives it the air of science and wisdom." Also in the twelfth section he affirms:[4] "To begin with clear and self-evident principles, to advance by timorous and sure steps, to review frequently our conclusions, and examine accurately all their consequences; though by these means we shall make both a slow and a short progress in our systems; are the only methods, by which we can ever hope to reach truth, and attain a perfect stability and certainty in our determinations." These last two passages, if interpreted with strict literalness, are inconsistent with Hume's former statements; for here he seems to abandon the inductive method of the scien-

[1] P. 498. [2] P. 9. [3] P. *Ibid.* [4] P. 123.

tists, and to adopt the deductive method of the philosophers. But the truth of the matter is that the "accurate and just reasoning" which is spoken of in the first passage, is conversant with matters of fact; and the "clear and self-evident principles" which are referred to in the second, are arrived at by means of induction. Although Hume, in both works,[1] seemed to make certain assumptions, and then reasoned from these according to the deductive method, yet in most cases, these assumptions are ultimately based, implicitly at least, on observation and experiment. In the Inquiry, the author did not discard, nor even subordinate his experimental method. For the result of his investigation is but a "mental geography, or delineation of the distinct parts and powers of the mind";[2] that is, a description of impressions and their copies, in their coexistence and succession. Likewise, without adopting any of the distinctive methods of experimental psychology, he introduced, as in the Treatise, a few experiments in the psychology of sensation, in order to prove, or to illustrate his arguments.[3]

It is obvious, therefore, that Hume adopts the scientific method in both works. The deductive element of this method although perhaps not more generally employed in the later work than in the earlier, is more fully recognized in the first section of the Inquiry than in the introduction to the *Treatise of Human Nature.* This change may be explained, in part, on psychological grounds; Hume at first expected to obtain extraordinary results from the use of his experimental

[1] *Cf.* I, pp. 324, 326, 339; IV, pp. 13–15, 124, 125.

[2] P. 10; *cf.* pp. 15, 17.

[3] *Cf.* IV, pp. 15, 124, 125.

method. But the change is probably due, in the main, to the difference in subject-matter of the two introductions; the one being an introduction to the science of man, the other an introduction to the theoretical part of the science. Hence, when the author afterwards takes up the discussion of practical philosophy, in the *Inquiry concerning the Principles of Morals,* he again emphasizes the importance of the inductive element. Regarding the nature of moral distinctions he asserts:[1] "As this is a question of fact, not of abstract science, we can only expect success, by following the experimental method, and deducing general maxims from a comparison of particular instances." Hume designated the *Treatise of Human Nature,* "An attempt to introduce the experimental method of reasoning into moral subjects," because in the work he employed the inductive method of the natural scientists, rather than the deductive method of the rationalistic philosophers. This method he followed in the Inquiry in a like manner, and substantially to the same extent as in the Treatise.

[1] IV, p. 174.

CHAPTER III.

PERCEPTIONS: THEIR NATURE, AND CAUSE.

§ 9. *The Nature and Classification of Perceptions.* —Although Hume, in his psychology, adopted an atomistic view of mind, he did not carry out his analysis of the concrete phenomena of consciousness sufficiently far to enable him to distinguish between the purely psychological standpoint, and the epistemological. The ultimate elements of consciousness are, for him, not merely structural, but also functional. While together they constitute the stream of thought, each one separately has meaning, it knows. Failure to perceive the true significance of this fact has been one of the chief reasons why, on the one hand, the merits of Hume's system have seldom been fully realized, and why, on the other, the philosophy of human nature has been subjected to much irrelevant and inane criticism.

In the Treatise, all mental phenomena are called perceptions. These are the only objects of human knowledge.[1] Although conjoined, they are not connected, they all are distinct and separable; that is, perceptions generally do not exist separately, but they all may be thought of as existing separately, and consequently, may all exist as distinct and separate entities.[2] They are complex, or simple, according as

[1] *Cf.* pp. 311, 324, 327, 339, 371, 396, 408, 466, 483, 493, 503, 518, 523, 558.

[2] *Cf.* pp. 319, 326, 343, 370, 376, 381, 388, 456, 463, 495, 518, 540, 558, 559.

they can, or cannot be resolved into simpler elements.[1]

Perceptions form two general classes, impressions, and ideas. Impressions are always the first to appear in the mind. Of this Hume gives two proofs:[2] (1) "Every simple impression is attended with a correspondent idea, and every simple idea with a correspondent impression." (2) "Wherever by any accident the faculties, which give rise to any impression, are obstructed in their operations [or when the organs of sensation have never been put in action to produce a particular impression], not only the impressions are lost, but also their correspondent ideas." Hence it follows that all ideas are copies of impressions. Simple ideas differ from their corresponding impressions only through their less degree of force, vivacity, or liveliness.[3] But complex ideas differ also in some other—although not important—respects from the complex impressions from which they were derived; for instance, they are less perfect or complete, and their details are more confused.[4] With regard to force or liveliness, impressions and ideas merge into each other, or blend by imperceptible degrees, and consequently, at times, cannot be distinguished by introspection.[5] Impressions are of two kinds, those of sensation, and those of reflection. Impressions of sensation are those that arise "in the soul originally, from unknown causes," by means of the senses, also sensations of "heat or cold, thirst or hunger, pleasure or pain." Impressions of reflection "arise mostly

[1] P. 312; *cf.* p. 328.

[2] P. 314.

[3] *Cf.* pp. 311, 312, 327, 396, 452.

[4] P. 313; for an apparent contradiction, see II, p. 113.

[5] Pp. 311, 421.

from ideas," but sometimes directly from impressions of sensation.[1] They are the passions, emotions, desires, and aversions.[2] There are also two kinds of ideas, those of sensation, and those of reflection. These correspond, respectively, to the two kinds of impressions, being copies of them.[3] And since ideas may produce "the images of themselves in new ideas," there arise "secondary ideas, which are images of the primary."[4] Besides the classification of ideas into those of sensation and those of reflection, there is another division into those of memory, and those of imagination. Ideas of memory differ from those of imagination by their fixed order of appearance in the mind, and by their greater degree of force, vivacity, or liveliness.[5]

Probably through ignorance of continental philosophy, Hume mistakenly expresses the opinion that the distinction which he makes between impressions and ideas settles the controversy concerning innate ideas. Hence, he regards all impressions as innate, and all ideas as not innate.[6] In the case of different shades of color, for example, blue, he admits an exception to his general principle that impressions always precede their corresponding ideas, but thinks the instance is so singular that the general maxim need not be altered.[7] True, a similar exception may be observed in the degrees of every distinct class of sensations—as indeed Hume seems to imply,[8]—not only in the

[1] P. 311; *cf.* II, p. 76.
[2] Pp. 316, 317, 324, 340.
[3] P. 317.
[4] P. 316.
[5] P. 317, 318, 386, 387, 407, 409, 545.
[6] I, p. 316.
[7] I, p. 315.
[8] I, p. 315; *cf.* IV, p. 16.

sphere of color, but also in that of sound, taste, etc. These instances, however, strictly speaking, are only apparent exceptions to Hume's maxim. The different shades of blue are but different degrees of gray, or of brightness, mixed with the color tone. And ideas may be increased or diminished in quantity or in intensity by the imagination alone.

Of the three sections which originally dealt with these topics, only one appears in the Inquiry. The two entitled, "Division of the Subject," and "Of the Ideas of the Memory and Imagination" are entirely omitted. These omissions were doubtless made for the sake of brevity, and do not seem to be significant. Some of Hume's critics, however, have thought otherwise. Their views will be examined presently, after the points on which there is no controversy have been stated. As in the Treatise, all mental phenomena are called perceptions. These are the only objects of knowledge.[1] Perceptions are conjoined, but not connected; they all may be regarded as distinct and separate existences.[2] Perceptions fall into two classes, impressions, and ideas. That impressions are the first to appear in the mind, the same two proofs are given as formerly.[3] Hence, all ideas are copied from impressions, and differ from them only in degree of force, vivacity, or liveliness.[4] The exception to the general rule,—that all simple ideas are copies of impressions,—is noted as before in the case of color.[5] And the controversy on innate ideas is supposed to be settled by the decision that all impressions are

[1] *Cf.* pp. 13, 15, 51, 52, 61, 64, 125.
[2] *Cf.* pp. 27, 61, 90, 126, 134.
[3] P. 15.
[4] Pp. 13, 14, 17; *cf.* II, p. 113.
[5] P. 16.

innate, and all ideas are not innate.[1] Thus far, there is complete agreement between both works; on some other questions there is ground for discussion.

With regard to impressions and ideas, Hume asserted in the Treatise that it is impossible at times to perceive, by means of introspection, the difference between them. "It sometimes happens, that our impressions are so faint and low, that we cannot distinguish them from our ideas."[2] Yet in the Inquiry he says:[3] "[The memory and imagination] may mimic or copy the perceptions of the senses; but they never can entirely reach the force and vivacity of the original sentiment. . . . The most lively thought is still inferior to the dullest sensation." The contradiction here is only apparent. What Hume means, in the latter passage, is that, under normal conditions and as a general rule, "the most lively thought is still inferior to the dullest sensation." He grants that there are exceptions, for he asserts that when the mind is "disordered by disease or madness," impressions and ideas become "altogether undistinguishable."[4] In the Treatise he made several statements of exactly similar import.[5] The position of the earlier work, viz., that it is sometimes impossible to distinguish impressions from ideas by means of introspection, is psychologically correct. And Hume would undoubtedly have expressed the same view in the Inquiry, had he treated the subject fully, or had he written solely for the philosophers and not also for the public.

Brede[6] states that the distinction between simple

[1] P. 17n.
[2] P. 311; *cf.* p. 421.
[3] P. 13.
[4] P. 13; *cf.* pp. 57, 124.
[5] Pp. 311, 421.
[6] *Der Unterschied d. Lehren H.*, p. 30.

and complex ideas is omitted in the later work, and thinks that this omission is due to Hume's desire not to emphasize the separateness of simple ideas, since soon after writing the Treatise the author discovered that he could not unite the separate ideas so easily as he formerly thought he could. It may be admitted that simple and complex ideas are not defined in the Inquiry. But the cause assigned by Brede is evidently not the real one. For Hume not only still holds that all perceptions are distinct and separate, and may be thought of as separate existences,[1] but he speaks of simple and complex ideas in a manner implying the same distinction as that made in the Treatise. Incidentally, he remarks:[2] "Complex ideas may, perhaps, be well known by definition, which is nothing but an enumeration of those parts or simple ideas, that compose them." The difference here recognized, between simple and complex ideas, was not pointed out with the same fulness and clearness of detail as in the earlier work, because the author now aimed particularly at conciseness of statement. The omission is of no special significance.

Selby-Bigge[3] asserts that, in the Inquiry, the distinction between "impressions of sensation and reflection" is omitted. But he neglects to mention that it is repeatedly assumed. For instance, in section vii Hume states:[4] "It seems a proposition, which will not admit of much dispute, that all our ideas are nothing but copies of our impressions, or, in other words, that it is impossible for us to *think* of any-

[1] *Cf.* I, p. 559; IV, pp. 27, 61, 90, 134.

[2] P. 51; *cf.* pp. 14, 15, 18.

[3] *Hume's Enquiries*, p. xii.

[4] P. 51; *cf.* pp. 17, 38 n., 40, 52, 53, 61, 64, 65.

thing, which we have not antecedently *felt,* either by our external or internal senses." He implies, of course, that the impressions and ideas of the internal senses are those of reflection, as distinguished from sensation. As he said in the earlier work,[1] "the idea of necessity" must be derived "from some internal impression, or impression of reflection." In fact, Hume speaks of impressions and ideas of reflection in the same manner, and seems to attribute to them the same origin in both books. Thus in the Treatise he says:[2] "This idea of pleasure or pain, when it returns upon the soul, produces the new impression of desire and aversion, hope and fear, which may properly be called impressions of reflection, because derived from it." And in the Inquiry he asserts:[3] "[The idea of power] is an idea of reflection, since it arises from reflecting on the operations of our own mind." Explicit treatment of impressions of reflection was omitted, in the later work, simply for the sake of brevity, as was explicit mention of them often omitted in the earlier, for the same reason. "I shall only observe before I proceed any farther," remarked Hume in the Treatise,[4] "that though the idea of cause and effect be derived from the impressions of reflection as well as from those of sensation, yet for brevity's sake, I commonly mention only the latter as the origin of these ideas; though I desire that whatever I say of them may also extend to the former." It was evidently for a similar reason that the classification of primary and secondary ideas was not given in the Inquiry. For in the Treatise Hume said that the limitation of his maxim of "the priority

[1] P. 460. [2] P. 317. [3] P. 53. [4] P. 380.

of impressions to ideas," arising from the recognition of the relation of secondary ideas to primary, was "an explanation" of his general principle, rather than "an exception" to it.[1]

As several writers[2] have pointed out, the distinction between the ideas of memory, and those of imagination is omitted in the later work. When dealing with this subject Hume is not only indefinite, but also inconsistent. In the Treatise ideas of memory are differentiated from those of imagination by two characteristics:[3] their fixed order, and their greater force. At first, the former[4] characteristic is regarded as being the more important, but afterwards, the latter.[5] Again, not only may ideas of memory be so vivid, that they resemble impressions, and are called impressions of memory;[6] but they may also degenerate to such a degree as to become indistinguishable from ideas of imagination.[7] And on the other hand, ideas of imagination, through repetition, may become so strong and vivid that they are mistaken for ideas of memory.[8] Grimm's treatment of this question is exceedingly plausible, and is probably the best that has been given. His argument, in brief, is as follows:[9] In the early part of the Treatise, Hume regards memory as something self-dependent and entirely different from imagination. But in a later section,

[1] P. 316.

[2] *Cf.* Pfleiderer, *Empirismus u. Skepsis*, p. 119 n.; Brede, *Der Unterschied d. Lehren H.*, p. 31; Selby-Bigge, *Hume's Enquiries*, p. xii.

[3] Pp. 317, 318.

[4] P. 318.

[5] Pp. 386, 387, 545.

[6] Pp. 384, 385, 387, 407.

[7] P. 387.

[8] Pp. 387, 416, 421.

[9] *Zur Gesch. d. Erkenntnisproblems*, pp. 452, 453.

when he enters more deeply into the nature of knowledge of experience, and particularly of the causal connection of things, he develops those defects through which memory is almost deposed from its peculiar position, so that it differs from imagination only in degree. On account of these defects, the distinction between the two faculties, at first somewhat strongly emphasized, loses its chief worth. That may be the cause, therefore, why Hume in his second work neglects to enter upon a discussion of this subject. The facts are essentially as Grimm states them, and his conclusion is not entirely without justification. It is certain that Hume, when writing the Inquiry, was influenced by the desire to avoid the contradictions in the earlier work, and that may have been a reason why he neglected to give a full treatment of the ideas of memory and imagination. And it is probable that he perceived the impossibility of precisely distinguishing between these two classes of ideas, and therefore refrained from making the attempt within the compass of a popular essay. But the chief reason for these omissions was undoubtedly the author's desire to secure conciseness of statement; since he implicitly distinguishes between the ideas of memory and those of imagination, and assigns to the former, in contrast with the latter, the chief functions ascribed to them in the Treatise. "Whenever any object is presented to the memory or senses," he says,[1] "it immediately, by the force of custom, carries the imagination to conceive that object, which is usually conjoined to it; and this conception is attended with a feeling or sentiment, different from the loose

[1] IV, p. 41; *cf.* pp. 13, 17, 39, 43.

reveries of the fancy." If Hume had revised, or rewritten the earlier work, instead of only portions of it, all the distinctions formerly made between memory and imagination would, in all probability, have been expressed in the later. Even the inconsistencies that appear in the fuller statement are verbal, rather than real. With care they might have been avoided. They cannot, therefore, fairly be regarded as having any specific influence on the author when he wrote the Inquiry.

Concerning the question of the nature and classification of perceptions, it is evident that the position of the two works is practically the same. On all the more important topics there is perfect agreement. On minor points, of course, owing chiefly to omissions in the Inquiry, there are some differences observable. But these are differences of treatment, not of doctrine. Since the distinctions which were explicitly made, in the earlier work, are either reasserted, or implied in the later, the omissions do not seem to have any significant bearing on Hume's philosophical position.

§ 10. *The Cause of Perceptions.*—The treatment of the cause of perceptions is rendered somewhat difficult, owing to the ambiguity attaching to the word cause. True, it was one of Hume's main contentions, one of the theses which he especially aimed to prove, that cause means only invariable antecedent.[1] "Thus upon the whole we may infer," he declares,[2] "that when we talk of any being, whether of a superior or inferior nature, as endowed with a power or force, proportioned to any effect; when we speak of a neces-

[1] I, pp. 375 and ff.; IV, pp. 51 and ff.

[2] I, p. 457; *cf.* IV, pp. 60, 61.

sary connection betwixt objects, and suppose, that this connection depends upon an efficacy or energy, with which any of these objects are endowed; in all these expressions, *so applied,* we have really no distinct meaning, and make use only of common words, without any clear and determinate ideas." Hume, however, was obliged to use the language at his disposal, and not infrequently he speaks of cause as if implying by it producing power. Yet if the instances in which he seems to use cause in this sense be examined, it will often be discovered that the real meaning of the word is but invariable antecedent.[1] Having defined what he meant by cause, he was at liberty to employ the terms he found most convenient for his purpose. No doubt, at times he found it convenient to use cause in an improper sense, perhaps realized that it was impossible to avoid such use. But in these instances he is inconsistent, and the inconsistency must be acknowledged.

Concerning the cause of perceptions, that is, their invariable antecedent, Hume gives two different accounts.[2] These may be called the epistemological explanation, and the physiological, viz., (1) What is the cause of perceptions according to the philosophy of human nature? (2) What is the cause of perceptions according to natural science? The two questions require separate treatment.

I. What is the cause of perceptions according to Hume's system of philosophy, the epistemological explanation? In the Treatise, the author says that the impressions of sense arise "in the soul originally,

[1] *Cf.* I, pp. 316, 317, 340, 343, 385; IV, pp. 16, 17, 60, 64, 125.
[2] I, pp. 313, 314.

from unknown causes.'' When the impressions disappear, they leave their traces or copies; these are ideas of sensation—primary ideas of sensation, from which, in turn, may arise secondary ideas. Impressions and ideas of sensation also give rise to impressions of reflection—passions, desires, and emotions. These latter "are copied by the memory and imagination and become ideas [of reflection] ; which perhaps in their turn give rise to other impressions and ideas.''[1] The order of genesis then is as follows: impressions of sensation, ideas of sensation, impressions of reflection, and ideas of reflection; impressions of sensation being the cause of ideas of sensation—sometimes also the cause of impressions of reflection,[2]—ideas of sensation the cause of impressions of reflection, and impressions of reflection the cause of ideas of reflection.

Although the greater part of this account is omitted in the Inquiry, Hume's position may easily be ascertained. As in the Treatise, he distinguishes between impressions and ideas, and states repeatedly that all ideas arise from the external or internal senses, that is, from sensation and reflection.[3] Thus there is implied the same classification of perceptions as before; and the impressions of sensation and reflection are, respectively, the cause of their corresponding ideas. True, it is not explicitly stated that the impressions of reflection, in every instance, arise from impressions or ideas of sensation. Grimm[4] suggests that perhaps Hume wished thus to escape one of the contradictions involved in the earlier work, viz., that of making im-

[1] I, p. 317.

[2] *Cf.* I, p. 317; II, pp. 75, 76.

[3] *Cf.* pp. 14, 15, 17, 40, 51, 52, 53, 61, 64, 65.

[4] *Zur Gesch. d. Erkenntnisproblems,* p. 589.

pressions of reflection causally dependent on impressions of sensation, instead of merely successive in time. This reason, however, does not seem to have been the real one. For according to Hume, causally dependent simply means invariably consequent. In this sense, Hume again, in the second book of the *Treatise of Human Nature,* regarded impressions of reflection, which he called secondary, as dependent on impressions or ideas of sensation, which he called original.[1] And in a similar manner, in the Inquiry, he not only still holds that ideas are dependent on impressions—as Grimm indeed admits,[2]—but also that the impression of reflection from which the idea of cause is derived is dependent on impressions of sensation.[3] It seems as if the omission in the Inquiry was due to the author's desire for brevity of treatment, rather than to any change of view, or endeavor to avoid contradictions.

Thus far, there has been assigned no cause of the impressions of sensation. Concerning these, in a note to the first section of the Treatise, Hume asserts:[4] "By the term of impression I would not be understood to express the manner, in which our lively perceptions are produced in the soul, but merely the perceptions themselves." To this statement there is nothing corresponding in the Inquiry, except a note on innate ideas, which contains the following sentence:[5] "But admitting these terms, *impressions* and *ideas,* in the sense above explained, and understanding by *innate,* what is original or copied from no precedent percep-

[1] II, pp. 75, 76.

[2] *Zur Gesch. d. Erkenntnisproblems,* p. 559.

[3] Pp. 53, 62, 65; *Cf.* pp. 14, 15, 17, 40, 51, 52, 61, 64.

[4] P. 312.

[5] P. 17.

tion, then may we assert, that all our impressions are innate, and our ideas not innate." Thus he implies that impressions are the cause of ideas, but concerning the cause of impressions he has nothing now to say. In the second section of the Treatise, however, he declares:[1] "The examination of our sensations belongs more to anatomists and natural philosophers than to moral; and therefore shall not at present be entered upon." In the Inquiry, there is nothing corresponding to this statement. The sentence just quoted seems to imply that Hume will afterwards deal with impressions. But as this investigation "belongs more to anatomists and natural philosophers than to moral," the explanation must be physiological rather than epistemological. Hence arises the second question.

II. What is the cause of perceptions according to natural science, the physiological explanation? As already stated, thus far, in neither work, does Hume assign any cause of the impressions of sensation. In the Treatise, he remarked that the examination of the impressions of sense belonged more to anatomists and natural philosophers than to moral, and therefore should not at present be entered upon. Consequently, when he afterwards gives a physiological explanation of perceptions, it might naturally be supposed that this explanation applies only to impressions. The treatment, however, is too general to bear this interpretation. For when he discusses the subject in Part II, and again in Part IV, he speaks, not of the cause of impressions, but of the cause of perceptions, including the cause of ideas as well as that of impressions. In the Treatise are such passages as the following:[2]

[1] P. 317. [2] P. 365.

"I shall therefore observe, that as the mind is endowed with a power of exciting any idea it pleases; whenever it dispatches the spirits into that region of the brain, in which the idea is placed; these spirits always excite the idea, when they run precisely into the proper traces, and rummage that cell, which belongs to the idea."—"When we press one eye with a finger, we immediately perceive all the objects to become double. . . . But as we do not attribute a continued existence to both these perceptions, and as they are both of the same nature, we clearly perceive, that all our perceptions are dependent on our organs, and the disposition of our nerves and animal spirits."[1] These quotations clearly indicate that the physiological cause of perceptions is cerebral and neural processes—including, of course, the movements of animal spirits. Cerebral and neural processes are the invariable antecedents of perceptions. In still another passage Hume declares:[2] "I would answer, that we must separate the question concerning the substance of the mind from that concerning the cause of its thought; and that confining ourselves to the latter question we find by the comparing their ideas, that thought and motion are different from each other, and by experience, that they are constantly united; which being all the circumstances, that enter into the idea of cause and effect, when applied to the operations of matter, we may certainly conclude, that motion may be, and actually is, the cause of thought and perception." It is true, he admits that this conclusion "evidently gives the advantage to the materialists above their antagonists."[3] But the ad-

[1] P. 498. [2] P. 530. [3] P. 532.

mission, standing as it does against several contrary statements,[1] has no philosophical importance.[2] It probably occurred through the author's over zeal in his opposition to the "spiritualists" with their "metaphysical entities."

Although, in the Inquiry, there is no definite answer given to the question concerning the physiological cause of perceptions, there are some statements which contain, at least, a partial answer. In section ii,[3] Hume admits that, when the mind is "disordered by disease or madness," ideas may "arrive at such a pitch of vivacity" that they are indistinguishable from impressions; and in section xii,[4] he implies that many "perceptions arise not from any thing external," but from the condition of the organism, or from a certain state of the brain or nerves. These and other passages[5] of like import clearly mean that perceptions are caused, that is, invariably preceded, by cerebral and neural processes, or by movements of the animal spirits.[6] Statements confirming this conclusion may be found in Hume's other writings. In the posthumous work, the *Dialogues concerning Natural Religion,* for example, Philo asks:[7] "What peculiar privilege has this little agitation of the brain which we call thought, that we must thus make it the model of the whole universe?"

The conclusion now reached, viz., that the physiological cause of perceptions is cerebral processes, seems

[1] *Cf.* pp. 385, 546.
[2] *Cf.* pp. 532, 533.
[3] P. 13.
[4] P. 125.
[5] *Cf.* pp. 15, 55, 57, 124.
[6] *Cf.* Huxley, *Hume,* pp. 76, 78; Porter, *Science and Sentiment,* p. 311.
[7] II, p. 396.

to be inconsistent with a statement made in the second section of the Treatise, to the effect that impressions of sense arise in the soul originally "from unknown causes." The explanation, however, is not difficult. In his account of the physiological cause of perceptions, Hume has reference to the *immediate* cause; hence his answer, neural and cerebral processes. But when the further question is raised, what is the *ultimate* cause of perceptions? he has no answer to give. True this question, from the philosophical point of view, is much more interesting than the previous one. But Hume does not attempt to answer it. As he has just said, impressions of sense arise in the soul originally from unknown causes; that is, the original, or ultimate cause of impressions is unknown. In another passage also, he declares:[1] "As to those *impressions,* which arise from the *senses,* their ultimate cause is, in my opinion, perfectly inexplicable by human reason, and it will always be impossible to decide with certainty, whether they arise immediately from the object, or are produced by the creative power of the mind, or are derived from the author of our being."

In the Inquiry, almost exactly the same position is assumed in the first part of the twelfth section. "By what argument can it be proved," asks Hume,[2] "that the perceptions of the mind must be caused by external objects, . . . and could not arise either from the energy of the mind itself, or from the suggestion of some invisible and unknown spirit, or from some other cause still more unknown to us?" It is true that, in the later work, the author does not draw a distinction between the question of the immediate cause,

[1] I, p. 385. [2] P. 125.

and that of the ultimate cause of impressions. Nevertheless, this distinction seems to be implied, when he admits that some impressions are produced by neural and cerebral processes, or by the condition of the bodily organism;[1] and when, at the same time, he affirms that it is impossible to tell from whence "the perceptions of the mind" arise.[2] Thus Hume leaves the metaphysical question of realism and idealism undetermined, and asserts that it is indeterminable. It is a matter which lies wholly beyond the power of human understanding. This is the position of the Inquiry as well as of the Treatise.

Before concluding the discussion, some reference should be made to the opinions that have been expressed, by interpreters of Hume, regarding his doctrine of the cause of perceptions. Huxley[3] states that Hume "fully adopted the conclusion to which all that we know of psychological physiology tends, that the origin of the elements of consciousness, no less than that of all its other states, is to be sought in bodily changes, the seat of which can only be placed in the brain." At the same time, he asserts that "Hume is not quite consistent with himself" respecting the origin of impressions of sensation.[4] Knight takes a somewhat similar view, but he is more reserved in the expression of it. He says:[5] "[Hume] suggests that, *for all that we know to the contrary,* material changes may be sufficient to produce mental ones, but he does not teach this dogmatically." He also asserts that Hume is inconsistent in his treatment of

[1] *Cf.* pp. 15, 55, 57, 124.
[2] P. 125.
[3] *Hume,* p. 74.
[4] *Hume,* p. 72.
[5] *Hume,* pp. 143, 144; *cf.* Porter, *Science and Sentiment,* p. 311.

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the subject, "both in the Treatise, and the Inquiry." Webb declares:[1] "But though in his psychology [Hume] refuses to recognise either the conceptions or the principles of efficient causation and essential substance, yet in his metaphysics he finds himself compelled to admit that our impressions have a cause, and thus to recognize with Kant the existence of a non-sensuous cause of our sensations." And Seth[2] affirms that, "Hume cuts short the question of the cause of our impressions as a transcendental inquiry." Here are several different, and even contradictory statements. One represents that, according to Hume, the cause of perceptions is cerebral processes; another that the author, in both works, contradicts himself; a third that the cause of impressions is a noumenal existence; and still another that the cause of impressions, being a transcendental question, is not investigated. The inconsistencies in these divergent views are accounted for, and at the same time in large measure removed, by the interpretation that has just been given. It is manifest that Hume recognizes a distinction between the immediate cause of perceptions and the ultimate cause. He distinguishes between the immediate and the ultimate causes of phenomena.[3] He says of his philosophy, that it "pretends only to explain the nature and causes of our perceptions, or impressions and ideas."[4] He states that the cause of perceptions is motion, movements in the brain or nerves, or of the animal spirits.[5] But the "ultimate

[1] *Veil of Isis*, p. 120; *cf.* pp. 87, 121.

[2] *Scottish Phil.*, pp. 46, 48; *cf.* I, p. 161; Aikins, *Phil. of Hume*, p. 44; Speckmann, *Hume's metaphysische Skepsis*, p. 24.

[3] *Cf.* I, p. 546; IV, p. 11.

[4] P. 368.

[5] *Cf.* I, pp. 364, 365, 498, 515.

cause'' of impressions he regards as ''perfectly inexplicable by human reason.'' That is to say, the cause assigned is the immediate cause, and the cause unassignable is the ultimate one.

§ 11. *Conclusion.*—The more important results of the discussion may be summarized as follows:

1. The Nature and Classification of Perceptions. According to Hume's philosophy, perceptions are the only objects of knowledge. All perceptions may be thought of as distinct and separate existences. They are of two kinds, impressions, and ideas. Impressions of sensation are the original elements, or ultimate facts of human experience. From these are derived the ideas of sensation. Impressions and ideas of sensation give rise to impressions of reflection, from which in turn are derived the ideas of reflection. On all these points the position of both works is the same, except that, in the Inquiry, it is not expressly stated —although evidently implied—that all impressions of reflection are utimately dependent on impressions of sensation. In the Treatise, it is stated that ''as our ideas are images of our impressions, so we can form secondary ideas, which are images of the primary.''[1] But this limitation of his maxim of the priority of impressions to ideas, Hume says, ''is not, properly speaking, an exception to the rule so much as an explanation of it.'' The reference, naturally, is omitted in the briefer work.

The classification of ideas given in the Treatise into simple, and complex, is omitted in the Inquiry, but the distinction between them is still plainly indicated.[2] The classification of ideas into those of

[1] P. 316. [2] P. 51.

memory, and those of imagination is also omitted in the later work. Yet one of the two distinctive characteristics of ideas of memory, viz., force and vivacity, is expressly attributed to them; and the other, fixed order, is implied.[1]

2. The Cause of Perceptions. (1) The cause of perceptions, according to the principles of the philosophy of human nature, that is, the epistemological cause, has already been treated under "classification." (2) The physical cause of perceptions is motion in the nerves and brain, or of the animal spirits. On this point the position of the Inquiry seems to be identical with that of the Treatise. Concerning the ultimate cause of perceptions, Hume has no explanation to offer; in both the Treatise and Inquiry, he regards it as unknown and unknowable.

[1] *Cf.* pp. 17, 41, 43.

CHAPTER IV.

ASSOCIATION OF IDEAS AND RESULT—COMPLEX IDEAS.

§ 12. *Association of Ideas.*—After it had been demonstrated by experimental psychology that there is not a special faculty of imagination, strictly speaking but rather that there are several faculties—that instead of imagination, there are imaginations,—it was natural to infer that Hume's mind was decidedly of the visualizing type.[1] The conclusion, supported as it is by strong internal evidence, scarcely admits of doubt. Hume originated his system of philosophy at a very early age; and as Galton[2] has shown, in youth the visualizing imagination is most vivid. The imaging activities of mind play a large part in the philosophy of human nature. Thus, all the objects of knowledge are impressions and their copies. "Whatever is clearly conceived may exist; and whatever is clearly conceived, after any manner, may exist after the same manner. . . . Again, every thing which is different, is distinguishable, and every thing which is distinguishable, is separable by the imagination."[3] It is in his treatment of relations and general ideas, however, that Hume's visualizing tendencies become most conspicuous. So long as he has to deal only with sense impressions, or with ideas possessing a content that may be pictured, he has comparatively little difficulty. But when he treats a subject-matter that

[1] *Cf.* Fraser, *Am. J. of Psy.*, Vol. IV, p. 230.

[2] *Mind*, Vol. V, p. 301.

[3] I, p. 518; *cf.* IV, p. 31.

cannot be spread out before the eye of imagination, he involves himself in obscurities or contradictions. He regards relations, at one time, as qualities of ideas,[1] at another, as complex ideas,[2] then as acts of comparison,[3] and again as results of comparison.[4] Philosophers had concluded that the general idea man could represent men of all sizes only "by representing no particular one at all."[5] But Hume, carried away by his visualizing imagination, professes to prove, "that it is utterly impossible to conceive any quantity or quality, without forming a precise notion of its degrees."[6] Consequently, he concludes that abstract or general ideas are "in themselves, individual, however they may become general in their representation. *The image in the mind*[7] is only that of a particular object, though the application of it in our reasoning be the same, as if it were universal."[8]

Since Hume assumes that all perceptions are "distinct and separable," and may exist separately, every distinct perception being "a distinct existence,"[9] one of his first problems is to show the manner in which ideas are connected, in order that knowledge may be possible. In the Treatise, this connection is partially effected by the faculty of memory, which produces an "inseparable connection,"[10] or rather a very strong relation,[11] between ideas remembered. But there are also the ideas of imagination to be related. If these were "entirely loose and unconnected, chance alone would join them"; and the result would not be

[1] I, pp. 319, 322.
[2] I, pp. 321, 322.
[3] I, p. 463.
[4] I, pp. 352, 372.
[5] I, p. 326.
[6] I, pp. 326, 327.
[7] The italics are mine.
[8] I, p. 328.
[9] *Cf.* I, pp. 319, 326, 518.
[10] P. 321.
[11] *Cf.* p. 540.

knowledge, but chaos.[1] Confusion happily is averted by means of certain principles of association, which relate ideas according to general laws in a regular and orderly manner. The principles of connection, or laws of association, are three: resemblance, contiguity, and cause and effect.[2]

Several critics[3] have pointed out that Hume should have recognized only two fundamental principles of association of ideas, since he later reduced causation to a species of contiguity. It seems, however, that the author of the Treatise, in the section on association, makes causation coordinate with resemblance and contiguity only provisionally; for he asserts:[4] "As to the connection, which is made by the relation of *cause and effect,* we shall have reason afterwards to examine it to the bottom, and therefore shall not at present insist upon it." He arrives at his classification inductively. And while he admits that resemblance, contiguity, and causation are "neither the *infallible* nor the *sole* causes" of union among ideas, he maintains that they are "the only *general* principles."[5]

Hume, moreover, offers a partial explanation of the laws of association. He calls them "natural relations" in contradistinction to "philosophical relations."[6] He also calls them "qualities" of ideas. And these qualities of ideas, or uniting principles, he regards as "a gentle force," or "kind of ATTRACTION, which in the mental world will be found to have

[1] P. 319. [2] *Ibid.; cf.* II, pp. 82, 101.

[3] Cf. McCosh, *Agnosticism of Hume and Huxley,* p. 18; Brown, *Philosophy of the Human Mind,* II, p. 229; Mill, *Analysis of the Phenomena of the Human Mind,* I, p. 110.

[4] P. 320; *cf.* I, p. 175. [5] P. 393. [6] P. 322.

as extraordinary effects as in the natural, and to show itself in as many and as various forms."[1] In Part I[2] of the Treatise, he asserts that the cause of association must be resolved into "*original* qualities of human nature," which he does not pretend to explain. But in Part II,[3] he alleges that a physiological explanation of the laws of association might be given, by showing "why upon our conception of any idea, the animal spirits run into all the contiguous traces [or cells, in the brain], and rouse up the other ideas, that are related to it." It may be noted that, in the opinion of Uhl,[4] Hume is here speaking ironically, perhaps with reference to Descartes. On the other hand, according to Morris,[5] he professes his utter inability to explain the laws of association. The former view is undoubtedly incorrect; but the latter is true, in the sense that Hume professes his inability to give an ultimate explanation of these laws; he lays claim only to suggest a physiological explanation.[6]

In the early editions of the Inquiry, the treatment of association of ideas consisted largely of popular illustrations. These were gradually relegated to footnotes, until the discussion in the text became exceedingly brief. It is now simpler, as well as briefer than that in the Treatise.[7] As before, Hume recognizes three principles of connection among ideas, re-

[1] P. 321. [2] *Ibid.* [3] Pp. 364, 365.

[4] *Die Grundzüge d. Psychologie D. H.*, I, p. 29 n.; *cf.* Pfleiderer, *Empirismus u. Skepsis*, p. 121 n. 2.

[5] *British Thought and Thinkers*, p. 248.

[6] *Cf.* Riehl, *Der philosophische Kriticismus*, I, p. 153; Lange, *History of Materialism*, II, p. 160.

[7] *Cf.* Burton, *Life*, I, p. 286.

semblance, contiguity, and cause and effect. He admits it may be difficult to prove satisfactorily "that this enumeration is complete," but thinks that "the more instances we examine, and the more care we employ, the more assurance shall we acquire, that the enumeration, which we form from the whole, is complete and entire."[1] Since a separate account of memory is not given in the Inquiry, Hume does not explicitly represent that faculty as a principle of union among ideas; yet he does so implicitly.[2] Moreover, in conformity with his treatment of perceptions,[3] he does not now offer a physiological explanation of the principles of association. With the exception of the differences just indicated, which are but of minor importance and are easily accounted for, the position of both works on the subject of association of ideas is exactly the same.

An apparent inconsistency in the two account may here perhaps be noted. In the Treatise[4] Hume said that resemblance, contiguity, and cause and effect were not the "*sole* causes" of union among ideas; but in the Inquiry,[5] he says that these are "the only three principles of connection." The discrepancy is only verbal. What the author means, in the later work, is that resemblance, contiguity, and cause and effect are the only three *fundamental* principles of association. For he immediately adds, in a foot-note,[6] that "contrast or contrariety is also a connection among ideas." But contrast he does not regard as a law or principle of association, since he thinks it may be considered as "a mixture of causation and resemblance."

[1] P. 18. [2] Pp. 17, 41, 43. [3] *Cf.* pp. 65–67 above.
[4] P. 393. [5] P. 18. [6] *Ibid.*

Selby-Bigge[1] asserts that, "in the treatment of association," in the Inquiry, "little is said about causation as a principle of association"; while on the other hand, Pfleiderer[2] affirms that Hume's excursion on association, in the later work, is too prolix. Both statements are substantially correct. At the conclusion of the discussion, in the Treatise, Hume remarked:[3] "Nothing is more requisite for a true philosopher, than to restrain the intemperate desire of searching into causes, and having established any doctrine on a sufficient number of experiments, rest contented with that, when he sees a farther examination would lead him into obscure and uncertain speculations. In that case his inquiry would be much better employed in examining the effects than the causes of his principle." Naturally, therefore, in the briefer work, after stating that the enumeration of the laws of association was "complete and entire," he continued:[4] "Instead of entering into a detail of this kind, which would lead into many useless subtilties, we shall consider some of the effects of this connection upon the passions and imagination; where we may open a field of speculation more entertaining, and perhaps more instructive, than the other." Then followed several illustrations of his principles, as applied in history, poetry, and the drama. This excursion within the field of literature was transferred, in course of time, to foot-notes. Hence, in the early editions of the Inquiry the treatment of association is prolix, but in the later editions—omitting the foot-notes—it is exceedingly brief. With regard to Selby-

[1] *Hume's Enquiries*, p. xii.

[2] *Empirismus u. Skepsis*, p. 120 n.

[3] P. 321.

[4] P. 19 n.

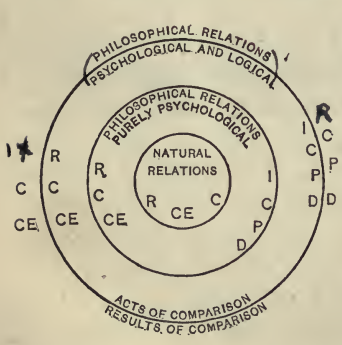
Bigge's assertion that little is said, in the later work, about causation "as a principle of association," it may be noted that the treatment of causation, as an associating principle, was fuller in all the earlier editions of the Inquiry than that given in the Treatise. As Hume, in the earlier work, stated that causation was "the most extensive"[1] of the three principles of association, so in all the editions of the later work, prior to that of 1777, he affirmed that the relation of cause and effect was "the strongest" of all the relations, and "the most instructive."[2] The changes of treatment, in the Inquiry, were undoubtedly due to the author's desire to present his theory of knowledge in a popular manner; and the omissions must be attributed to his wish for brevity of statement.

§ 13. *Complex Ideas.*—The products of the laws of association, or of the natural relations are complex ideas. These are philosophical relations, modes, and substances.[3] They may be treated in their order.

I. Philosophical Relations. It was remarked in the last chapter[4] that Hume nowhere distinguishes between the standpoint of psychology, and that of epistemology. It may be noted now that he fails in like manner, in his treatment of relations, to distinguish between purely logical, and psychological processes. This is another source of ambiguity that must constantly be kept in mind. In the earlier work, the section dealing with relations is exceedingly obscure, and the several scattered references tend rather to befog the reader than to illumine the subject. Hume states that complex ideas are "the effects" of the natural relations. Soon, however, for natural

[1] P. 320. [2] P. 19 n. [3] I, p. 321. [4] P. 50.

relations he substitutes "principles of union or cohesion" among simple ideas.[1] And principles of union, or "qualities" of objects he afterwards speaks of as philosophical relations.[2] Philosophical relations are distinguished from natural relations in the following manner.[3] A natural relation is "that quality, by which two ideas are connected together in the imagination, and the one naturally introduces the other." A philosophical relation is "that particular circumstance, in which, even upon the arbitrary union of two ideas in the fancy, we may think proper to compare them." It will be observed that these definitions differ from each other only in degree. But Hume, in his treatment of philosophical relations, does not confine himself strictly to his definition. He speaks of philosophical relation, not only as the source of comparison, but also as the result of comparison,[4] and finally, as the act of comparison.[5] Hence there appear now to be three kinds of philosophical relations. And as one of these, the results of comparison, is afterwards subdivided,[6] there are five sorts of relations in all,—four of philosophical relations, and one of natural. The matter will become clear by presenting this classification in the schematic form of three concentric circles.[7] In the inner circle are the natural relations, resem-



[1] P. 321. [2] Pp. 322, 323. [3] P. 322.
[4] Pp. 322, 323, 372. [5] P. 463. [6] P. 372.
[7] *Cf.* Pfleiderer, *Empirismus u. Skepsis*, p. 128.

blance, contiguity, and cause and effect. As these diminish in strength, so that they do not produce associations naturally, they pass to the middle circle and become qualities, or "particular circumstances" in respect of which two ideas may be compared.[1] Here they are joined by four other "particular circumstances," identity, contrariety, proportions in quantity, and degrees of quality. These seven "particular circumstances" are the philosophical relations that are purely psychological. They are "the sources" of all other philosophical relations,[2] viz., those which are logical as well as psychological. This latter class is represented by the outer circle. It contains two subclasses, acts of comparison,[3] and results of comparison,[4] corresponding respectively to the concave and convex sides of the circle. Finally, there is a twofold division of the results of comparison:[5] (1) those that "may be changed without any change in the ideas," viz., identity, contiguity, and causation; (2) those that depend entirely upon the ideas compared, viz., resemblance, contrariety, proportions in quantity, and degrees of quality.

It is not implied, of course, that Hume had the above classification of relations clearly in mind. Nor is it probable that, even if he had, he would have stated it explicitly. He did not possess the schematizing faculty so characteristic of Kant. But he was endowed with profound psychological insight, and an extraordinary degree of sound common sense, which enabled him to seize the chief features of his problem, and thus to treat of relation in its most important stages of development. True, he did not do this quite consistently. The contradictions, however, are

[1] P. 322. [2] *Ibid.* [3] P. 463. [4] Pp. 322, 372. [5] P. 372.

mostly verbal, apparent rather than real. And when these are removed, it must be conceded that his psychology of relations contains practically all the essential elements that are yet to be met with in the most scientific treatment of that subject.

Hume's doctrine of relations has often been criticised on the ground that ideas of relation are not copies of impressions.[1] Huxley even proposed, in order to obviate this objection, to amend "Hume's primary geography of the mind," by including "impressions of relation" among the elementary states of consciousness.[2] But Huxley did not have sufficient psychological training to enable him to be of any service to the Scottish philosopher on this occasion. Nor does the latter stand much in need of the proffered assistance. Hume, as indeed Seth admits, "does not strip his impressions quite bare of relations."[3] He recognizes the fact of relatedness among perceptions.[4] From this the way is easy to "the natural relations," or laws of association. He recognizes the fundamental form of association, viz., ab — bc,[5] when he speaks of "the bond of union" among ideas as "some associating quality."[6] Finally, he arrives at an abstract idea of relation by comparing perceptions. "Since equality is a relation," he says,[7] "it is not, strictly speaking, a property of the figures themselves, but arises merely from the comparison, which the mind makes betwixt them."

[1] *Cf.* Introd., p. 174; Adamson, *Ency. Brit.*, art. *Hume*, p. 352; Seth, *Scottish Phil.*, pp. 54, 55; Grimm. *Zur. Gesch. d. Erkenntnisproblems*, pp. 592, 593; *Pillon, Psychologie de Hume*, p. xiv.

[2] *Hume*, p. 69. [3] *Scottish Phil.*, p. 54. [4] I, p. 319.

[5] *Cf.* Titchener, *Primer of Psychology*, p. 131.

[6] I, p. 319. [7] I, p. 352; *cf.* pp. 341, 463.

Thus Hume advances from the relatedness of impressions and ideas, through association and comparison to the abstract idea of relation.

In the Inquiry, the section on philosophical relations is entirely omitted. Hume's division of complex ideas into relations, modes, and substances, being an inheritance from Locke, is not transmitted to the later work; partly, because it is not essential to his main purpose, and partly, because he has now largely outgrown Locke's influence.[1] For his former classification of complex ideas he substitutes the twofold division of "the objects of human reason or inquiry,"[2] viz., relations of ideas, and matters of fact, without stating whether the relations thus involved are natural or philosophical. Modes, or general ideas, and substances he treats incidentally; but philosophical relations he recognizes only indirectly,[3] without explicitly mentioning.

Pfleiderer[4] suggests, as a reason for this omission of a treatment of philosophical relations, that the peculiar activity of mind betrayed by the multitude of relations and comparisons, in the Treatise, was inconsistent with Hume's theory of psychological atomism. The argument, however, has no weight. Activities of mind, that is, activities of perceptions, gave Hume no concern—and rightly—in his exposition of relations. On the other hand, several ambiguities and some inconsistencies arose through his speaking of philosophical relations as the ground of comparison, as acts of comparison, and as results of

[1] *Cf.* I, pp. 308, 342; IV, p. 17 n.

[2] P. 20.

[3] Pp. 63, 64, 79.

[4] *Empirismus u. Skepsis,* pp. 128, 129; *cf.* Brede, *Der Unterschied d. Lehren H.,* p. 33.

comparison, without distinguishing between psychological relations and logical. By neglecting to treat this subject in the Inquiry, the author avoided many vexatious embarrassments. Besides, the explicit distinction between natural, and philosophical relations may have been omitted because, not only is there no real line of separation between them, but in the earlier work there arose at once a confusion between the relations of identity and resemblance, and also a tendency for the three natural relations to become indistinguishable from the three philosophical relations that might change "without any change in the ideas." Moreover, shortly after publishing the Treatise, Hume became more conscious than formerly of the difficulties involved in his system, through the inadequacy of relations satisfactorily to unite successive perceptions in consciousness, and thus explain personal identity.[1] This discovery, and likewise the author's well-known desire to present the more important parts of his philosophy in a popular manner furnish additional reasons for the omission in the briefer work of a discussion so obscure, intricate, and even self-contradictory as that on philosophical relations.[2]

Yet this omission does not necessarily imply any important change in Hume's doctrine. Minor changes it undoubtedly signifies, but essential ones obviously not. Incidental references confirm this conclusion. Thus, in the twofold definition of cause,[3] Hume implicitly admits a distinction between natural

[1] I, p. 559.

[2] *Cf.* Grimm, *Zur Gesch. d. Erkenntnisproblems*, pp. 458, 459, 576; Brede, *Der Unterschied d. Lehren H.*, pp. 32, 33.

[3] IV, pp. 63, 64, 79.

relations and philosophical. And the division of "the objects of human reason"[1] into relations of ideas and matters of fact, implies a distinction between the two classes of philosophical relations; for it corresponds in large measure, to the twofold division of these relations which is given in the Treatise, viz., into those that depend entirely upon the ideas compared, and those that may change without any change in the ideas. Hume now avoids all his former difficulties by substituting, for the twofold division of philosophical relations, the simple division of objects of reasoning into relations of ideas, and matters of fact, without explicitly stating whether the relations thus involved are natural, or philosophical.

II. General Ideas. Besides philosophical relations, the products of the laws of association are substances, and modes—including general ideas. The idea of substance will be dealt with later, along with that of external existence. And with regard to modes, the first question of interest is Hume's doctrine of abstract ideas.

Hume did not distinguish between abstract idea proper, and general idea, that is, between the idea of an attribute, and the idea of a common attribute, or between the idea of a part of an object, considered as a part, and the idea of a number of objects possessing common qualities. Following the example of Locke, he used the term abstract idea for any notion which is the result of abstraction and generalization. In this way he is accountable for much of the confusion which has prevailed in philosophical discussion, and which to a certain extent still continues, regarding the use of the terms abstract and general.

[1] IV, p. 20; *cf.* I, p. 423; II, p. 240.

It is unnecessary to go into the details of Hume's argument, in the Treatise, to prove that general ideas, so-called, are always particular. The conclusion follows directly from his fundamental principles: All simple impressions are distinct existences; and all simple ideas are but copies of simple impressions, while all complex ideas are merely combinations of simple ideas. Hence, every idea must be determined in its degree "both of quantity and quality"; that is, all ideas are particular.[1] But although all ideas are particular, those that have a common name and are thus called general, may represent successively a number of individuals, "in such an imperfect manner as may serve the purposes of life." This they do by means of resemblance and custom.[2]

In the appendix[3] Hume added a brief note on general ideas, merely in order to further explain his doctrine, not to indicate any change of view. And in the Inquiry, in the few incidental references which he makes to this subject, he adopts the same position as he did in the Treatise. Thus in the twelfth section, after pointing out that the primary, as well as the secondary qualities of objects are perceptions in the mind, he affirms:[4] "Nothing can save us from this conclusion, but the asserting, that the ideas of those primary qualities are attained by *Abstraction;* an opinion, which, if we examine it accurately, we shall find to be unintelligible, and even absurd. An extension, that is neither tangible nor visible, cannot possibly be conceived: And a tangible or visible extension, which is neither hard nor soft, white nor black, is equally beyond the reach of human concep-

[1] Pp. 326, 327. [2] P. 328. [3] I, p. 328 n. [4] P. 127.

tion. Let any man try to conceive a triangle in general. . . . and he will soon perceive the absurdity of all the scholastic notions with regard to abstraction and general ideas." Again, in a note referring to the contradictions in mathematics arising from the supposed infinite divisibility of quantity and number, he adds:[1] "It seems to me not impossible to avoid these absurdities and contradictions, if it be admitted, that there is no such thing as abstract or general ideas, properly speaking; but that all general ideas are, in reality, nothing but particular ones, attached to a general term, which recalls, upon occasion, other particular ones, that resemble, in certain circumstances, the idea, present to the mind." On the question of general ideas, therefore, the position of the Inquiry is identical with that of the Treatise.

It has been much debated whether Hume's doctrine of general ideas is the same in both works, and also whether it is the same as that of Berkeley. On the latter point Meinong's view,[2] rather than Pfleiderer's,[3] is undoubtedly the more correct. Berkeley[4] does not deny absolutely that there are "general ideas," but only "that there are any *abstract* general ideas." Hume, on the other hand, is an ultra-Nominalist. On the former point, however, Meyer,[5] rather than Meinong,[6] holds the truer opinion. No change in Hume's doctrine of abstract or general notions is dis-

[1] P. 129 n.

[2] *Hume-Studien*, I, pp. 218, 219; *cf. Mind*, Vol. III, p. 387.

[3] *Empirismus u. Skepsis*, p. 126.

[4] Fraser, *Selections from Berkeley*, p. 21.

[5] *H. und B. Phil. der Mathematik*, pp. 38, 39; *cf. Mind*, Vol. XX, p. 266.

[6] *Hume-Studien*, I, p. 259.

coverable in the Inquiry. Of course Hume's treatment, in the earlier work, of what he calls "a distinction of reason," may be looked upon as a concession to Conceptualism, and consequently, as an approach to Berkeley's position. Nevertheless, Grimm's statement,[1] that Hume's theory of Nominalism misrepresents Berkeley's, does not seem to be open to criticism. The fact that the "distinction of reason" is not drawn in the Inquiry cannot be regarded as having any special significance, since in the later work, not only is the treatment of general ideas almost entirely omitted, but this omission is easily explained. In the Treatise, Hume gave an exhaustive discussion of his doctrine because, (1) he regarded it as "one of the greatest and most valuable discoveries" that had been made "of late years in the republic of letters"; and (2) he endeavored to confirm it by arguments which he hoped would "put it beyond all doubt and controversy."[2] In the Inquiry, he apparently assumed that he had succeeded in his object,[3] and consequently, thought it unnecessary to discuss the question again, particularly within the limits of a popular essay.

§ 14. *Conclusion.*—The main conclusions of the chapter may now be briefly stated:

1. In the treatment of the laws of association the position of both works is essentially identical. In the Treatise, Hume discovers inductively that there are three general principles of association, and he suggests a physiological explanation of them. In the Inquiry, he discovers in like manner that there are

[1] *Zur Gesch. d. Erkenntnisproblems*, p. 461.

[2] P. 325.

[3] P. 127.

the same three general laws; but instead of attempting to explain their cause, he gives a popular treatment of their effects as illustrated in literature. In the earlier work, Hume remarked that nothing was more requisite for "a true philosopher," than to restrain the intemperate desire of searching into causes; and in the later, he hoped to open up a field of speculation that would be "entertaining" and "instructive." The change of treatment, therefore, was evidently due to his desire to popularize his doctrine. The omission of a physiological explanation of association, in the Inquiry, is in keeping with his method of treating perceptions. In the briefer work, he does not offer any physiological explanation of the cause of perceptions, but implies the same view as in the Treatise. A similar conclusion may be inferred with regard to the cause of association.

2. The products of the laws of association are complex ideas,—relations, modes, and substances. This classification is omitted in the Inquiry, and in its stead is substituted the simple division of the objects of reasoning into relations of ideas and matters of fact. Incidentally, the same view of general ideas is expressed as was presented at considerable length in the Treatise.

The controversy on the doctrine of general ideas has been practically settled by experimental psychology. The general idea as a psychical process, or piece of mind, is of course particular in its existence. As such, however, it need not correspond to any particular individual thing that is included in the class which it represents, nor in fact to any one thing that exists anywhere. The error in Hume's doctrine

lay, not in his reasoning, but in his assumed data. He did not remain sufficiently true to his experimental method. The visualizing imagination with which he was endowed produced a psychological mirage, from the subtle illusions of which he never succeeded in completely freeing himself. He failed to discover: (1) that some minds think mainly in images, others in symbols; and (2) that the same mind may think in images, or in symbols, according as the subject-matter of thought is uncommon, or familiar. A pupil, for example, when beginning the study of algebra has a constant tendency to give some definite content to the characters employed in the reasoning; but on becoming conversant with algebraic processes, he makes the symbols alone serve as the vehicle of thought. The general idea may vary from a definite mental image to a mere symbol. Croom Robertson struck the nail on the head when he remarked:[1] "There are concepts which there is no possibility of definitely representing and which the mind keeps hold of only by the help of a definite name or sign. On the other hand, there is a kind of image, more or less definite, which in certain circumstances arises in the mind as representative of a number of resembling objects without being exactly representative of any of them, and which is thus a true concept." In every concept, the important factor for knowledge is not the psychological process, but the logical, the element of meaning. With this truth, indeed, Hume does not seem to have been wholly unacquainted, as is seen in his brief discussion on the "distinction of reason." But its full force, or true significance, he completely failed to perceive.

[1] *Mind*, Vol. IV, p. 553.

CHAPTER V.

SPACE AND TIME.

§ 15. *Infinite Divisibility.*—Part II of the Treatise contains Hume's doctrine of space and time. In this discussion dialectic skill and profound originality are everywhere manifest. But the author's intellectual power is not organized. His visualizing imagination and erroneous presuppositions color and distort the argument to such an extent that this discussion, notwithstanding the exceedingly great merits of the exposition, is the most obscure, intricate, vacillating, and even self-contradictory in all his philosophical writings. Hume indeed seems to have been somewhat conscious of the difficulties inherent in this part of his system, for he entered upon his task with unusual care and forethought. In the last section of Part I he dealt with general ideas, thus preparing the way for the treatment of space and time in Part II. And here, before grappling with his subject proper, he disposed of the minor questions concerning the infinite divisibility of ideas, and the infinite divisibility of space and time.

Ideas, according to Hume, are not infinitely divisible, because: (1) "the capacity of the mind is limited, and can never attain a full and adequate conception of infinity"; and (2) "whatever is capable of being divided *in infinitum*, must consist of an infinite number of parts." Hence it follows, "that the *idea*, which we form of any finite quality, is not infinitely

divisible, but that by proper distinctions and separations we may run up this idea to inferior ones, which will be perfectly simple and indivisible."[1]

It is not quite clear, however, what the nature or characteristics of these indivisible ideas are. For Hume further asserts:[2] "When you tell me of the thousandth and ten thousandth part of a grain of sand I have a distinct idea of these numbers and of their different proportions; but the images, which I form in my mind to represent the things themselves, are nothing different from each other, nor inferior to that image, by which I represent the grain of sand itself, which is supposed so vastly to exceed them. What consists of parts is distinguishable into them, and what is distinguishable is separable. But whatever we may imagine of the thing, the idea of a grain of sand is not distinguishable, nor separable into twenty, much less into a thousand, ten thousand, or an infinite number of different ideas." Yet on the following page, he remarks: "This however is certain, that we can form ideas, which will be no greater than the smallest atom of the animal spirits of an insect a thousand times less than a mite." Hume's position seems to be this: one can form an idea about anything whatever that can be presented in imagination, no matter how small it may be; but this idea itself, if of a very minute object, can be divided at most only a few times.

Having shown that ideas are not infinitely divisible, Hume next endeavors to prove that space and time are not infinitely divisible. This is an easy task on the two assumptions which he makes: (1) "Whatever

[1] P. 334. [2] P. 335.

ideas are adequate representations of objects, the relations . . . of the ideas are all applicable to the objects''; and (2) ''our ideas are adequate representations of the most minute parts of extension.''[1] Therefore, since ideas are not infinitely divisible, space or extension is not infinitely divisible. The reasoning concerning the infinite divisibility of space holds also with respect to that of time.[2] The author is now ready to give his derivation of the ideas of space and time. The two subjects may be treated separately.

§ 16. *Space.*—Hume's doctrine of space and time is very easily misunderstood. Misconception, indeed, rather than interpretation, has been its common lot. A few quotations from expounders will serve as an introduction to the discussion; for the diversity of view among Hume's critics has much justification in the indefinite character of his treatement. Kühne asserts:[3] ''Hume held, with the dogmatic metaphysicians and most empiricists, space and time to be properties of things.'' Speckmann,[4] ''Hume starting from empiricism, in his investigations concerning space and time, comes to a similar result as does Kant through his transcendental idealism. Space and time are also for him, in essence, nothing more than subjective forms of intuition of the sensibility.'' Ritter,[5] ''Kant based his standpoint [in mathematics] on a doctrine of space different from that of Locke and Hume.'' Brede,[6] ''Extension consists, . . .

[1] P. 336. [2] P. 338.

[3] *Ueber das Verhaltniss d. Hume'schen u. Kantischen Erkenntnisstheorie*, p. 31.

[4] *Ueber H. metaphysische Skepsis*, p. 20.

[5] *Kant u. Hume*, p. 10.

[6] *Der Unterschied d. Lehren H.*, pp. 22, 23.

according to Hume, of a finite number of visible and tangible mathematical points, i. e., of points which have no extension in themselves, . . . but which, when two of them come together, do not penetrate, but constitute a compound body consisting of parts." Seth,[1] "Time and space are, by [Hume's] own showing, two different manners in which perceptions are disposed, and in virtue of which they necessarily lose their character of isolated particulars. . . . They are relations."

In accordance with his habitual lack of precision, Hume uses space and extension synonymously, also object and impression.[2] He gives the following account of the derivation of the idea of space: "Upon opening my eyes, and turning them to the surrounding objects, I perceive many visible bodies; and upon shutting them again, and considering the distance betwixt these bodies, I acquire the idea of extension."[3] Thus he regards space or extension as a quality of visible bodies, that is, a quality of impressions; and he seems to hold that the idea of extension is distance, or a copy of distance. But distance is a relation, as he himself explained formerly, "because we acquire an idea of it by the comparing of objects."[4] Hence, true to his philosophical principles, he immediately adds: "My senses convey to me only the impressions of colored points, disposed in a certain manner. If the eye is sensible of any thing farther, I desire it may be pointed out to me. But if it be impossible to shew any thing farther, we may conclude with certainty, that the idea of extension is nothing but

[1] *Scottish Phil.*, p. 56.
[2] *Cf.* pp. 341, 345.
[3] P. 340.
[4] P. 322.

a copy of these colored points, and of the manner of their appearance."[1] Here Hume encounters a difficulty. He might have said that the idea of space is distance, or a copy of distance. But now, since he states that the senses convey only the impression of colored points disposed in a certain manner, it follows that the idea of space is a copy of color and its manner of appearance. In short, space or extension is a "compound impression" consisting of "several lesser impressions, that are indivisible to the eye or feeling, and may be called impressions of atoms or corpuscles endowed with color and solidity."[2] And the idea of space, being but a copy of extension, "consists of parts" that are indivisible, and is itself extended.[3] "The idea of space or extension is nothing but the idea of visible or tangible points distributed in a certain order."[4]

Thus far, Hume has given an account of the derivation of only the particular idea of space. He next explains the process of transition to the general idea. When we have had experience of the different colors, and have found "a resemblance in the disposition of colored points, of which they are composed, we omit the peculiarities of color, as far as possible, and found an abstract idea merely on that disposition of points, or manner of appearance, in which they agree. Nay even when the resemblance is carried beyond the objects of one sense, and the impressions of touch are found to be similar to those of sight in the disposition of their parts; this does not hinder the abstract idea from representing both, upon ac-

[1] P. 341.
[2] *Cf.* pp. 345, 346, 366.
[3] *Cf.* pp. 344, 523, 527.
[4] P. 358.

count of their resemblance."[1] The general idea of space, therefore, is the "disposition" of visual or tangible points, or "the manner" of appearance in which they agree; or as elsewhere put, the general idea of space is "no separate or distinct" idea, but merely that of "the manner or order" in which objects exist.[2]

But the author of the Treatise does not satisfy himself with a mere exposition of his theory of space. After presenting his doctrine, he proceeds to answer some objections that may be urged against it, and at the same time to define it more exactly. Since space is not infinitely divisible, what is the nature, one may ask, of its ultimate indivisible elements? Hume rejects both the theory of mathematical points, and that of physical points. Each of these views is absurd.[3] He adopts an intermediate position, and regards the ultimate indivisible elements of space as mathematical points endowed with color or solidity.[4] This, however, is equivalent to saying that they are physical points. The author even admits, although implicitly, that they are such, when he asserts:[5] "That compound impression, which represents extension, consists of several lesser impressions, that are indivisible to the eye or feeling, and may be called impressions of atoms or corpuscles endowed with color and solidity." Another essential part of Hume's doctrine is that the idea of space necessarily implies the existence of matter. The idea of pure space, or of a vacuum is impossible for "the idea of space or extension is nothing but the idea of visible or tangible points distributed in a certain order."[6]

[1] P. 341. [2] P. 346. [3] *Ibid.*
[4] *Cf.* pp. 346, 347. [5] P. 345. [6] P. 358.

§ 17. *Time.*—The exposition of time is similar to that of space. The idea of time is derived from "the succession of our perceptions of every kind, ideas as well as impressions, and impressions of reflection as well as of sensation."[1] And the abstract idea of time "is not derived from a particular impression mixed up with others, and plainly distinguishable from them; but arises altogether from the manner, in which impressions appear to the mind, without making one of the number."[2] Consequently, the particular idea of time "can plainly be nothing but different ideas, or impressions, or objects disposed in a certain manner, that is, succeeding each other";[3] and the general idea of time is "no separate or distinct" idea, but merely that of "the manner or order" in which objects exist.[4] Yet, since it is impossible to have an idea of pure or empty time, the general idea of time is always represented "in the fancy by some individual idea of a determinate quantity and quality."[5]

§ 18. *Treatment of Space and Time in the Inquiry.* —In the Inquiry, there is nothing corresponding to Part II of the Treatise; hence, the discussion of space and time is here omitted. Yet, in the twelfth section and appended notes, there are some statements which imply that practically the same view of space and time prevails in both works.[6] Space and time are not infinitely divisible.[7] The ideas of space and time are derived from objects of sight and touch, by means of the senses.[8] And it is impossible to form an idea of empty space, or of empty time.[9]

[1] P. 341. [2] P. 343. [3] P. 344. [4] P. 346. [5] P. 342.

[6] *Cf.* Baumann, *Die Lehren v. Raum, Zeit u. Mathematik*, II, p. 482.

[7] Pp. 128, 129. [8] Pp. 126, 127. [9] P. 127.

There is one remark, however, in the Inquiry, which is inconsistent, formally at least, with a statement in the Treatise, and which accordingly calls for brief comment. In a foot-note Hume observes:[1] "Whatever disputes there may be about mathematical points, we may allow that there are physical points; that is, parts of extension, which cannot be divided or lessened, either by the eye or imagination." It has already been pointed out that, in the Treatise, he rejected the theory of physical points as an absurdity. It was inconsistent with his general maxim, "whatever objects are different are distinguishable." For "a real extension, such as a physical point is supposed to be, can never exist without parts, different from each other."[2] Yet it has also been shown that, although he rejected the doctrine of physical points in theory, he adopted it in practice. Consequently, the avowal here of the system of physical points is not of much significance.[3] It is interesting to note that, in the appendix, Hume had almost arrived at the same view. "If it be asked," he says,[4] "if the invisible and intangible distance, interposed betwixt two objects, be something or nothing: 'it is easy to answer, that it is *something,* viz., a property of the objects, which affect the *senses* after such a particular manner.' " This statement, it is true, is not quite correct. For an invisible, intangible distance cannot affect the senses in any manner whatever. But the important circumstance to notice is, that what Hume

[1] P. 128. [2] I, p. 346.

[3] *Cf.* Meyer, *Hume u. Berkeley's Phil. d. Math.*, p. 21, and n. 3; Brede, *Der Unterschied d. Lehren H.*, p. 46.

[4] I, p. 368.

calls an invisible, intangible distance he really regards as a property of objects.

Space and time were extremely difficult subjects for the author of the philosophy of human nature to deal with, on account of the falsity of some of his presuppositions. It is not surprising, therefore, that Part II is the most unsatisfactory division of the Treatise, and that it was omitted in the Inquiry. It is evident, however, that Hume regarded this part of his work as being of considerable importance, since he rewrote it—at least the treatment of space,—as is indicated by a letter to Millar in 1755. But although he sent the essay—"The Metaphysical Principles of Geometry"—to his publisher, he withdrew it before it was printed, because in the meantime Lord Stanhope, one of the most eminent mathematicians of his day, convinced him that "either there was some defect in the argument, or in its perspicuity."[1] This is the only reason positively known why Part II of the Treatise, although rewritten, was never published in its later form.

Before this letter to Millar became generally known, writers on Hume assigned many reasons to explain why Part II of the Treatise was omitted in the Inquiry. The argument of Brede is one of the most plausible, and is in substance as follows:[2] "As in the Treatise, Hume also assumes in the Essay indivisible, but real, visible and tangible points as the parts of extension. These are distinguished from the mathematical points of the Treatise only through their name, physical points. On a closer investigation of this

[1] Hill, Letters of D. H., p. 230.

[2] *Der Unterschied d. Lehren H.*, p. 46.

subject Hume does not enter. Such would have been impossible, without a direct criticism of his former view, according to which physical points could be distinguished into different parts. And then he would have been involved in great difficulties, in the application of his axiom, that whatever is distinguishable is separable." It is possible that a desire to avoid this contradiction may have had some influence on Hume when writing the later work. But as Brede himself observes, "the physical points" of the Inquiry are different only in name from "the mathematical points" of the Treatise. It is scarcely likely, therefore, that in the application of his maxim, Hume would have found himself involved in any greater difficulties in the one case than in the other. Rather, the cause of the omission of Part II is general, not special. The subject is an abstract one; and Hume's ideas on space and time were neither perfectly clear, nor strictly accurate.

§ 19. *Conclusion.*—It is easy, of course, as Green has abundantly shown, to discover inconsistencies in Hume's statement of his doctrine of space and time. For instance, space or extension is "nothing but a composition of visible or tangible points disposed in a certain order."[1] Upon shutting one's eyes and considering "the distance" between bodies, one acquires "the idea of extension."[2] Yet, "every idea is derived from some impression, which is exactly similar to it."[3] Or again, the particular idea of space is "nothing but a copy of . . . colored points, and of the manner of their appearance."[4] The general idea of space is "no separate or distinct" idea, "but

[1] P. 366. [2] P. 340. [3] *Ibid.* [4] P. 341.

merely'' that of ''the manner or order, in which objects exist.''[1] Yet, all general ideas ''are really nothing but particular ones, considered in a certain light.''[2] But what the critics have failed to notice is, that Hume came remarkably near giving a valid and satisfactory exposition of space and time. True, they have admired the exceedingly ingenious manner in which he presented his argument. Thus if asked, what is space? he replies, ''the manner or order in which objects exist.'' If asked, whence is the idea of space derived? he replies, ''from objects of sight or touch?'' And if asked, what is the idea of space? he replies, ''a copy'' of visual or tangible points, or ''the disposition'' of visual or tangible points, according as the one answer, or the other, suits his purpose; the former answer having reference to the particular idea of space derived logically in accordance with his system, and the latter having reference to the general idea of space as it prevails in popular thought. The critics, however, have been so busily engaged in detecting fallacies, and so intent on observing inconsistencies, that they have almost entirely overlooked the really significant points in his doctrine.

Hume's exposition of space and time has much more than plausibility to commend it. For the sake of brevity the discussion will be limited to the subject of space, as the argument, with but slight modifications, holds equally with regard to that of time. It is one of the chief distinguishing traits of the philosopher of Ninewells that he was the interpreter of actual experience, and not a prophet, nor a seer. That extension is an attribute of visual and tactual

[1] P. 346. [2] P. 341.

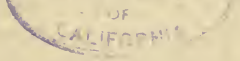
sensations is now a common-place in psychology. Such also was the view of Hume; but in his terminology sensations are called impressions.[1] It is true, Ward, James, and a few other psychologists maintain that space is an attribute of all sensations. Whether or not this is the case depends entirely upon the definition of the term. Certain it is that extension is an object of sight and touch, that space is an aspect of the real world of things. And not only was Hume right in holding that space is a datum of sensuous experience, but he was also right in indicating that there is a fundamental difference between the individual perception of space, and the general notion. In this respect, he had a truer vision than had Immanuel Kant. His intellectual eye was not dimmed by the mists of German rationalism, nor was his natural force abated by wrestling with noumenal existences. Although in this instance, however, the open minded Scotsman had the truer psychological insight, it must be admitted that his visualizing imagination and erroneous conception of general ideas misled him with regard to the exact nature of the difference between the particular perception of space, and the general notion. The essential feature of the latter is not the psychological element, but the epistemological; and this the author of the philosophy of human nature failed to perceive. For a similar reason also Hume's treatment of infinite divisibility is palpably defective. The particular idea of space, as he rightly maintained, is not capable of division to infinity; but the general idea of space, the fundamental characteristic of which is the element of mean-

[1] P. 341.

ing, is without question infinitely divisible. Of like nature, moreover, is Hume's treatment of a vacuum. He was certainly right in insisting that pure or empty space is never an object of perception. For what is ordinarily called the perception of space, the particular idea of space, is really the perception of diffuse matter, bounded to a greater or less extent by objects of a denser quality.[1] On the other, hand, however, he was mistaken when he asserted that the idea of pure space, or of a vacuum is impossible. For by means of abstraction one may have a general idea of space, an idea of pure or empty space, as the possibility of movement-sensations, or as the system of space relations—actual or possible—which obtains among external things.[2]

[1] *Cf.* Russell, *Foundations of Geometry*, pp. 194, 196.

[2] *Cf.* Fullerton, *Phil. Rev.*, Vol. X, p. 599; Nichols, *The Psychology of Time*, pp. 113, 139.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CHAPTER VI.

KNOWLEDGE—INTUITIVE AND DEMONSTRATIVE.

§ 20. *The Faculties of Mind.*—The accounts of Hume's theory of knowledge, as presented in both the Treatise and Inquiry, are exceedingly perplexing. This is due, in large measure, to the fact that the epistemological terminology of his day was not adequate to the treatment of his subject-matter. At one time he did not properly define his terms; at another, he did not consistently hold to his definitions. Moreover, not having a sufficient number of appropriate terms at his command, he occasionally gave to the same word different, or provisional definitions, according as the circumstances of the case required, without explaining the relation of these definitions to one another. This is particularly true of the names denoting mental faculties, or sources of knowledge. By faculty he meant, in general, the mind acting in a certain way. Of those which he recognized, the more important are the six following: sensation, memory, imagination, understanding or reason, reflection, and instinct.

Sensation, immediately or mediately, is the source of all knowledge. When impressions of sense return as ideas, they are called memory, or imagination, according as they possess—as a general rule,—or do not possess, a certain degree of force and vivacity, and a certain measure of fixity of order. When the ideas of imagination—or of memory—lose, to a certain ex-

tent, their sense content, and are combined in new forms by means of comparison, abstraction, or generalization, they become transformed into conceptions, and are attributed to the understanding or reason. Thus imagination and reason, like imagination and memory, differ only in degree. As Hume said,[1] the understanding or reason is but "the general or more established properties of the imagination." Hence, memory, imagination, and reason are different stages of one and the same process.[2] Reflection sometimes accompanies, sometimes follows sensation, memory, imagination, and reason. It is in part the basis of instinct.

Instinct is an indispensable factor in the philosophy of human nature. Of amorphous character, it plays many parts. It corresponds somewhat with the element of feeling in perceptions; it is a sentiment, or manner of conception. It is also closely related to sensation. "It seems evident," says Hume,[3] "that men are carried, by a natural instinct or prepossession, to repose faith in their senses." Moreover, instinct includes, to a greater or less extent, imagination, belief, habit, custom, and experiential or moral reasoning. "All belief of matter of fact or real existence," Hume affirms, in the Inquiry,[4] "is derived merely from some object, present to the memory or senses, and a customary conjunction between that and some other object. . . . This belief is the necessary

[1] I, p. 547; *cf.* IV, p. 38 n.

[2] *Cf.* Gore, *The Imagination in Spinoza and Hume*, p. 74.—"Reason is the imagination generalized, and the imagination is reason particularized."

[3] IV, p. 124; *cf.* I, pp. 483, 548.

[4] P. 40; *cf.* I, pp. 403, 474, 475.

result of placing the mind in such circumstances. It is an operation of the soul, when we are so situated, as unavoidable as to feel the passion of love, when we receive benefits: or hatred, when we meet with injuries. All these operations are a species of natural instincts, which no reasoning or process of the thought and understanding is able, either to produce, or to prevent." Again,[1] "Nothing leads to this inference [based on the idea of cause and effect] but custom or a certain instinct of our nature." And in the Treatise he asserts:[2] "Reason [experiential reasoning] is nothing but a wonderful and unintelligible instinct in our souls, which carries us along a certain train of ideas, and endows them with particular qualities, according to their particular situations and relations. . . . Nature may certainly produce whatever can arise from habit: Nay, habit is nothing but one of the principles of nature, and derives all its force from that origin." Furthermore, instinct is a species of knowledge derived from "the original hand of nature," and which is capable of little or no advancement.[3] Finally, it may be regarded as including what are commonly called the ideals of reason,—goodness, beauty, truth, duty, etc. "There is a great difference," says Hume,[4] "betwixt such opinions as we form after a calm and profound reflection, and such as we embrace by a kind of instinct or natural impulse, on account of their suitableness and conformity to the mind." Naturally, therefore, instinct is superior to reason. It is the great guide of human life.

[1] P. 131. [2] P. 471; *cf.* pp. 387, 404.
[3] IV, p. 88; *cf.* I, pp. 470, 471.
[4] I, p. 501; *cf.* pp. 474, 475, 478, 548, 549.

For the sake of clearness, it is well to note that, in the Inquiry, Hume made less use of imagination, and more use of instinct, than he did in the Treatise. Many mental processes which, in the earlier work, were attributed to imagination are, in the later, ascribed to instinct, custom, or nature. This change of treatment, although it does not indicate any change of doctrine, seems to imply a truer appreciation of the function of instinct. Yet it does not necessarily imply even this much. At most, it only rendered explicit in the Inquiry, what was implicit in the Treatise. For instinct, custom, or habit is always the basis or ground of the transition of imagination. The full significance of the change it is probably impossible to determine; for Hume used instinct, custom, habit, and imagination more or less interchangeably in both works. In the Treatise he asserted:[1] "When I consider the influence of this constant conjunction, I perceive, that such a relation can never be an object of reasoning, and can never operate upon the mind, but by means of custom, which determines the imagination to make a transition from the idea of one object to that of its usual attendant, and from the impression of one to a more lively idea of the other." Again,[2] "Reason [experiential reasoning] is nothing but a wonderful and unintelligible instinct in our souls, which carries us along a certain train of ideas, and endows them with particular qualities, according to their particular situations and relations." That is, reasoning is regarded equally as a transition of the imagination, and as a wonderful and unintelligible instinct. Likewise, in the Inquiry, the author stated:[3]

[1] P. 464; *cf.* p. 487. [2] P. 471. [3] P. 62; *cf.* p. 65.

"After a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. This connection, therefore, which we feel in the *mind,* this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connection." Further,[1] "We have no argument to convince us, that objects, which have, in our experience, been frequently conjoined, will likewise, in other instances, be conjoined in the same manner; and . . . nothing leads us to this inference but custom or a certain instinct of our nature." "Provided we agree about the thing," Hume once said, "it is needless to dispute about the terms." Accordingly, in the briefer work, instead of attributing certain mental processes directly to imagination, as formerly, and then indirectly to custom or instinct, he often ascribed them to custom, instinct, or nature directly.

§ 21. *Intuitive Knowledge.*—In the philosophy of human nature, impressions and ideas are the ultimate elements of knowledge. These possess certain qualities which constitute the ground of the three natural relations. Natural relations are the source of the seven kinds of philosophical relations, also of modes and substances. And the philosophical relations are the basis of the different degrees of certainty. In Part III of the Treatise, Hume deals with this last problem under the title "Knowledge and Probability." As has already been stated,[2] he distinguishes two classes of philosophical relations: those that depend entirely

[1] P. 130; *cf.* p. 40. [2] P. 83.

upon the ideas compared, and those that may be changed without any change in the ideas. The former class-relations of resemblance, contrariety, degrees of quality, and proportions in number and quantity—constitute "the foundation of science," and are objects of knowledge and certainty. The latter—identity, contiguity, and causation,—are the ground of probability.[1] Knowledge is of two kinds, intuitive, and demonstrative; and probability also is of two kinds, proofs, and probability in a narrower sense.[2] Proofs and probability will be treated in the three following chapters.

Intuitive knowledge means sense and memory knowledge. It is based on the relations of resemblance, contrariety, and degrees of quality. It arises immediately from the observation, or comparison of impressions and ideas. It does not necessarily mean exact, nor certain knowledge, but only that kind of knowledge which the mind obtains "at first sight," or which it arrives at immediately on the perception, among impressions and ideas, of the relations of resemblance, contrariety, or degrees of quality. Thus, in the Treatise, Hume asserts:[3] "And though it be impossible to judge exactly of the degrees of any quality, such as color, taste, heat, cold, when the difference betwixt them is very small; yet it is easy to decide, that any of them is superior or inferior to another, when their difference is considerable. And this decision we always pronounce at first sight, without any inquiry or reasoning."

There is no specific treatment of intuitive knowledge in the later work. In the earlier, Hume, follow-

[1] Pp. 372, 373. [2] P. 423. [3] P. 373.

ing Locke, regarded knowledge as the perception of the agreement or disagreement of impressions and ideas; consequently, he considered the philosophical relations as the ground or possibility of reasoning. But in the Inquiry, he omitted the table of philosophical relations, and for the classification of knowledge, or complex ideas, into relations, modes, and substances, he substituted the twofold division of "all the objects of human reason or inquiry," viz., relations of ideas, and matters of fact;[1] relations of ideas corresponding to those philosophical relations that depend entirely upon the ideas compared, and matters of fact corresponding, in large measure, to those philosophical relations that may change while the ideas compared remain the same. Accordingly, under the former division he includes the sciences of arithmetic, algebra, and geometry, and in short, every affirmation which is either "intuitively or demonstratively certain," and under the latter, the natural and historical sciences of probability.[2] In Book III of the *Treatise of Human Nature*[3] Hume reasserted the position of Book I, that resemblance, contrariety, degrees of quality, and proportions in number and quantity are the only relations which are "susceptible of certainty and demonstration." Although in the Inquiry[4] he thought that "the sciences of quantity and number" might be pronounced "the only proper objects of knowledge and demonstration," there is no reason to suppose that his view of intuitive knowledge was different from that presented in the Treatise. He implies the same distinction as formerly between intui-

[1] P. 20.
[2] Pp. 20, 22, 135.
[3] II, pp. 240, 241.
[4] P. 134.

tive and demonstrative knowledge, when he says that "the connection" between propositions is not "intuitive," if it "requires a medium."[1]

It may be imagined, perhaps, that there is some special significance in the substitution, in the later work, of the twofold division of knowledge—relations of ideas, and matters of fact—for the threefold division of the products of the laws of association, and for the subdivision of philosophical relations. Such, however, does not seem to be the case. Hume wrote the Treatise with Locke often in mind. But although he followed his master in some reduplications, cross-divisions, and contradictions, he endeavored to improve upon Locke's celebrated Essay. Ideas of sensation and reflection, as the original elements of knowledge, he transformed into impressions and ideas of sensation and reflection. While he accepted Locke's definition of knowledge, and his classification of complex ideas; instead of the four kinds of agreement and disagreement between ideas, as the necessary condition of knowledge, he put forward the seven kinds of philosophical relations. The two tables are related as follows:

1. Identity and diversity.	1, 2, 3. Identity, resemblance, and contrariety.
2. Relation.	4, 5, 6. Contiguity or relations of time and place, degrees of quality, and proportions in number and quantity.
3. Co-existence.	7. Cause and effect.
4. Real-existence.	

It will be observed that Hume's classification of

[1] P. 30.

philosophical relations differs considerably from Locke's four kinds of agreement or disagreement between ideas; for not only has the author of the Treatise naturally no place for knowledge of substance or real-existence, but his relations of identity and contrariety have not the same meaning as Locke's agreement or disagreement in the way of identity and diversity.

As Hume developed his system of philosophy, he worked gradually farther away from Locke's theory of knowledge, and approached, in certain respects, the position of Butler.[1] Soon he adopted relations of ideas and matters of fact as a convenient classification of the objects of knowledge. It is one of Patten's[2] many misconceptions that this classification first appeared in the Inquiry. On the contrary, it developed step by step with the natural progress of the author's thought, as he proceeded from the consideration of theoretical philosophy to that of practical. In some passages of the Treatise, for example, it is hinted at, or implied.[3] In Book II of the *Treatise of Human Nature* it is, for the first time, explicitly stated. "Truth is of two kinds," says Hume,[4] "consisting either in the discovery of the proportions of ideas, considered as such, or in the conformity of our ideas of objects to their real existence." And in Book III of the *Treatise of Human Nature* it is frequently employed, as in the following passage:[5] "As the operations of human understanding divide them-

[1] *Cf. Analogy*, p. 3.
[2] *The Development of English Thought*, p. 225.
[3] *Cf.* pp. 394, 395, 483.
[4] II, p. 223; *cf.* p. 227.
[5] II, p. 240; *cf.* p. 236.

selves into two kinds, the comparing of ideas, and the inferring of matter of fact; were virtue discovered by the understanding; it must be an object of one of these operations, nor is there any third operation of the understanding, which can discover it." The impossibility of giving a popular exposition of philosophical relations, or a satisfactory treatment within a limited compass was probably the chief cause for the introduction in their stead, in the Inquiry, of the simple division of objects of knowledge into relations of ideas and matters of fact.[1]

§ 22. *Demonstrative Knowledge.*—Demonstrative knowledge is that which arises from the understanding or reason. It is based on the relations of number and quantity. Very simple relations of number or quantity, such as may be observed at "one view," are more properly intuitive knowledge. But when these relations can be perceived only by means of "a chain of reasoning," they constitute demonstrative knowledge.[2] The sciences of demonstration are arithmetic, algebra, and geometry.

Hume's doctrine of mathematics has always been one of the interesting puzzles in his philosophy. It has been a subject of universal contention, and many expositions—as well as criticisms—of it have been given. These, however, at most have been but partially correct, and have resulted rather in contradiction and confusion, than in conviction or illumination. A few quotations, while exhibiting the variety of interpretation on the question, may suggest some guiding thoughts for a new solution. Masaryk asserts:[3]

[1] *Cf.* pp. 80–83, above. [2] Pp. 373, 374.

[3] *D. H. Skepsis u. d. Wahrscheinlichkeitsrechnung,* p. 6; *cf.* Windelband, *Gesch. d. n. Phil.,* I, pp. 321, 327; Rosenkranz,

"According to Hume, mathematics is an absolutely certain science, because founded on *a priori* principles." Watson,[1] "The mathematical doctrine of Hume may be stated in these three propositions: (1) Mathematical judgments rest upon impressions of sense; (2) they are singular; (3) they are only approximately true." Spicker,[2] "We must here note attentively that Hume, equally with Kant, considers mathematics as a pure activity of thought, which takes place independently of all experience, and is, therefore, *a priori* certain." Stuckenberg,[3] "Mathematics, which Hume considered as a relation of ideas, is grounded by him also exclusively on experience." Petzholtz,[4] "Mathematics belongs to the sciences which treat of relations of ideas, whose propositions, therefore, we discover through the pure activity of thought. . . . While Hume allows to arithmetic this unconditioned certainty, he does not attribute such without reserve to geometry." Caird,[5] "Hume in his earlier treatise attempted . . . to trace back the ideas of mathematics to impressions of space and time: but the attempt led him to the denial of the objective validity of mathematical truth, in so far as it goes beyond the possibility of empirical measurement."

Gesch. d. Kantischen Phil., p. 23; Volkelt, *Erfahrung u. Denken*, p. 108; Uhl, *H. Stellung in d. englischen Phil.*, pp. 31, 32; Ritter, *Kant u. Hume*, pp. 7, 9.

[1] *An Outline of Philosophy*, p. 357.

[2] *Kant, Hume u. Berkeley*, pp. 110, 117, 125; *cf.* Gordy, *Hume as Sceptic*, p. 1.

[3] *Grundprobleme in Hume*, p. 18; *cf.* I, pp. 222, 223.

[4] *Die Hauptpunkte D. H. Erkenntnislehre*, p. 29; *cf.* Adamson, *Ency. Brit.*, art. *Hume*, p. 353.

[5] *The Critical Philosophy of I. K.*, I, p. 256; *cf.* Mahaffy and Bernard, *Kant's Critical Philosophy*, II, p. 23, and n.

Webb,[1] "As to Hume's opinion with reference to the *a priori* character of mathematics, there can be no intelligent diversity of opinion. . . . He abandoned the doctrine of the Treatise." Riehl,[2] "It is erroneous to assert, that Hume has not doubted the validity of pure mathematics, since he, in the Treatise (and even in the Inquiry), not only doubts but positively impugns the evidence for geometry, and restricts validity to the abstract part of mathematics, the pure doctrine of quantity." Statements similar to these might be quoted indefinitely. They indicate great diversity in the answers given to the four following questions: (1) Is mathematics, according to Hume an *a priori* science? (2) Is it an absolutely certain science? (3) Is it a perfectly exact science? (4) Is there any difference between the respective positions of the Treatise and Inquiry on the three preceding questions? These quotations also indicate that the ground of their diversity is not solely subjective differences in the writers. The solution of the problem is to be sought only in a study of the objective differences that exist in Hume's treatment. And the key to this solution is the discernment that Hume, in the Treatise, gave three different, although not distinct or separate accounts of mathematics, corresponding to three stages of development in his doctrine. These accounts may be called the epistemological, the logical, and the psychological. They will be treated in their order.

I. The Epistemological Treatment of Mathematics.

[1] *Veil of Isis*, pp. 101, 102; *cf.* Long, *Ueber Hume's Lehre v. d. Ideen u. d. Substanz*, p. 35.

[2] *Der philosophische Kriticismus*, I, pp. 69, 96, 97; *cf. Windelband, Hist. of Phil.*, p. 473; Brede, *Der Unterschied d. Lehren H.*, pp. 11, 35.

—Hume's first account of his doctrine of mathematics is given in Parts II and III. The mathematical sciences, as already stated, are based on the philosophical relations of number and quantity. These relations, in turn, are based on certain qualities of impressions and ideas.[1] Geometrical relations are modes of space. Arithmetical and algebraic relations are modes of number. Both space and number are constituted of simple and indivisible units. The units of space are mathematical points, "endowed with color" or "solidity."[2] But of the units of number no explanation is offered. Hume merely asserts that "the unity, which can exist alone, and whose existence is necessary to that of all number, . . . must be perfectly indivisible and incapable of being resolved into any lesser unity."[3] The idea of space is derived from the senses of sight and touch.[4] And the idea of number arises from the perception of objects.[5] It is manifest, therefore, that all the mathematical sciences are empirical.

Arithmetic and algebra Hume regards as perfectly exact and certain sciences, because in dealing with numbers, the subject-matter of these sciences, "we are possessed of a precise standard, by which we can judge of [their] equality and proportion; and according as they correspond or not to that standard, we determine their relations, without any possibility of error."[6] Geometry, on the other hand, he declares "falls short of that perfect precision and certainty, which are peculiar to arithmetic and algebra, . . . because its fundamental principles are derived merely

[1] *Cf.* pp. 322, 323, 372. [2] Pp. 345, 347.
[3] P. 338. [4] Pp. 340, 341. [5] Pp. 337, 338. [6] P. 374.

from appearances."[1] That is to say, geometry would be a perfectly exact and certain science, if its fundamental principles, the definitions and axioms on which it is founded, were perfectly exact and certain. But these definitions and axioms are derived merely from the appearances of objects, and consequently, are not exact. Hence, the science of geometry is neither perfectly exact nor certain. Yet geometry excels in exactness and certainty "the imperfect judgments of our senses and imagination." For although Hume admits that the judgments concerning geometrical relations are not "more exempt from doubt and error than those on any other subject,"[2] he maintains, at the same time, that the fundamental principles of geometry "depend on the easiest and least deceitful appearances," and therefore, "bestow on their consequences a degree of exactness, of which these consequences are singly incapable."[3]

Apparently inconsistent with the preceding account is a passage in which Hume asserts that "geometry fails of evidence" in one "single point"—its demonstrations for the infinite divisibility of extension,—but that "all its other reasonings command our fullest assent and approbation."[4] This latter statement, if taken literally, cannot be harmonized with Hume's general position. But the author undoubtedly meant that it should be understood only in a relative sense. For he repeatedly affirms that geometry is not an exact nor certain science like arithmetic or algebra, its first principles having been derived from the general appearances of objects.[5]

[1] P. 374. [2] P. 353. [3] P. 374. [4] P. 357.
[5] Pp. 350, 353, 354, 355.

It may be noted, however, that if geometry dealt with discrete quantity, like numbers, instead of with continuous quantity, as is space, it would, according to Hume, be a perfectly exact and certain science.[1] Arithmetic and algebra are such, because they deal with discrete quantity. They possess a perfect exactness and certainty, because the exact difference between any two numbers whatever can easily be determined. The author speaks of two standards of certainty in geometry, one accurate, the other inaccurate. The inaccurate standard is the indefinite presentations of the senses and imagination, "derived from a comparison of objects, upon their general appearance, corrected by measuring and juxta-position." The accurate standard is the indivisible points of which lines and other geometrical figures are composed.[2] But although this latter standard is theoretically exact, it is impracticable both in science and in common life. If mathematicians be asked what they mean when they say that one line or surface is equal to, greater, or less than another, "[those] who defend the hypothesis of indivisible points," Hume asserts,[3] "need only reply, that lines or surfaces are equal, when the numbers of points in each are equal; and that as the proportion of the numbers varies, the proportion of the lines and surfaces is also varied. But though this answer be just," he continues, "as well as obvious; yet I may affirm, that this standard of equality is entirely useless, and that it never is from such a comparison we determine objects to be equal or unequal with respect to each other." On the question of the exactness and certainty of geom-

[1] Pp. 351, 374. [2] Pp. 351, 357. [3] P. 351.

etry, he explicitly states his position as follows:[1] "It appears, then, that the ideas which are most essential to geometry, viz., those of equality and inequality, of a right line and a plain surface, are far from being exact and determinate, according to our common method of conceiving them. . . . As the ultimate standard of these figures is derived from nothing but the senses and imagination, it is absurd to talk of any perfection beyond what these faculties can judge of; since the true perfection of any thing consists in its conformity to its standard."

The results of the discussion thus far may here be summarized. Proportions in number and quantity are the ground of demonstrative knowledge. But these proportions, like the other philosophical relations, are derived by means of the senses. Consequently, mathematics is an empirical science. Arithmetic and algebra are perfectly exact and certain sciences, since, dealing with discrete quantity, they possess a perfectly exact standard. But geometry, although it excels in exactness and certainty the inaccurate judgments of the senses or imagination, falls short of perfect precision, because dealing with continuous quantity, it lacks a perfectly exact standard. This may be called Hume's epistemological treatment of mathematics. It is only one part of his doctrine, and is considerably modified later.

II. The Logical Treatment of Mathematics.—In Part IV, the author draws the logical consequences of his philosophical principles, and sums up his doctrine of the understanding. In the first section he treats of mathematics in the following manner:[2] "In

[1] P. 356; *cf.* pp. 348, 350, 353, 355.

[2] P. 472.

all demonstrative sciences the rules are certain and infallible; but when we apply them, our fallible and uncertain faculties are very apt to depart from them, and fall into error. We must, therefore, in every reasoning form a new judgment, as a check or control on our first judgment or belief; and must enlarge our view to comprehend a kind of history of all the instances, wherein our understanding has deceived us, compared with those, wherein its testimony was just and true. . . . By this means all knowledge degenerates into probability. . . . There is no algebraist nor mathematician so expert in his science, as to place entire confidence in any truth immediately on his discovery of it, or regard it as any thing, but a mere probability. . . . In accounts of any length or importance, merchants seldom trust to the infallible certainty of numbers for their security." And as no one will maintain "that our assurance in a long enumeration exceeds probability," Hume thinks he may "safely affirm, that there scarce is any proposition concerning numbers, of which we can have a fuller security." If "any single addition were certain, every one would be so, and consequently the whole or total sum." But of course the whole is not certain. "Since, therefore," he concludes,[1] "all knowledge resolves itself into probability, and becomes at last of the same nature with that evidence which we employ in common life, we must now examine this latter species of reasoning, and see on what foundation it stands."

In every judgment concerning probability, and consequently concerning knowledge—since "all knowl-

[1] P. 473.

edge resolves itself into probability,"—there are, according to Hume, two sources of error and uncertainty, the understanding which judges, and the object about which the judgment is made.[1] Hence, even "the man of the best sense and longest experience . . . [is] conscious of many errors in the past, and must still dread the like for the future." Hume contends that, because of this natural fallibility of the understanding, every judgment requires to be corrected by another judgment, this one by another and so on *ad infinitum*. Thus as "demonstration is subject to the control of probability," so is "probability liable to a new correction by a reflex act of the mind, wherein the nature of our understanding, and our reasoning from the first probability become our objects." And he concludes again:[2] "When I reflect on the natural fallibility of my judgment, I have less confidence in my opinions, than when I only consider the objects concerning which I reason; and when I proceed still farther, to turn the scrutiny against every successive estimation I make of my faculties, all the rules of logic require a continual diminution, and at last a total extinction of belief and evidence." This is the logical account in Hume's treatment of mathematics,—or rather one might say of knowledge. For it has doubtless been noticed that, in following his order of exposition, the subject has been gradually broadened, until now the account applies not merely to mathematics but to knowledge in general.

The foregoing passages have given rise to two different lines of interpretation, neither of which is quite correct. According to the one, Hume distinguished

[1] P. 474. [2] *Ibid.; cf.* p. 475.

between mathematics as a pure science and mathematics as an applied science, and maintained that the former possesses exact and demonstrative certainty, but the latter only probability. According to the other interpretation, Hume's doctrine of mathematics is the culmination of a system of absolute skepticism or nihilism. The former view prevails, to a considerable extent, among the German critics; the latter is not uncommon with the writers of the Scottish school. They may be examined in succession.

Windelband affirms:[1] "*Mathematics is . . . the sole demonstrative science;* and is that just because it relates to nothing else than the possible relations between contents of ideas, and asserts nothing whatever as to any relation of these to a real world. In this way the terministic principle of Hobbes is in complete control with Hume, but the latter proceeds still more consistently with his limitation of this theory to pure mathematics." And Riehl asserts:[2] "Hume doubts not the exactness of pure, but the validity of applied mathematics." This position has been controverted by Adamson. "No question," he declares,[3] "arises regarding the *existence* of the fact represented by the ideas, and in so far, at least, mathematical judgments may be regarded as hypothetical. . . . That the propositions are hypothetical in this fashion does not imply any distinction between the abstract truth of the ideal judgments and the imperfect correspondence of concrete material with these

[1] *History of Philosophy*, p. 473; *cf.* Petzholtz, *Die Hauptpunkte D. H. Erkenntnislehre*, p. 29.

[2] *Der philosophische Kriticismus*, I, pp. 96, 97.

[3] *Ency. Brit.*, art. *Hume*, p. 353.

ideal relations. Such distinction is quite foreign to Hume, and can only be ascribed to him from an entire misconception of his view regarding the ideas of space and time." The statement of Adamson is the more correct one. Not only does Hume fail to distinguish between "the abstract truth of the ideal judgments and the imperfect correspondence of concrete material with these ideal relations," but he denies that this distinction exists. "[To reason]," he says,[1] "that the objects of geometry, . . . are mere ideas in the mind; and not only never did, but never can exist in nature," is "absurd and contradictory." Again,[2] "The notion of any correction [in geometry] beyond what we have instruments and art to make, is a mere fiction of the mind, and useless as well as incomprehensible." Finally, he states conclusively:[3] "It is usual with mathematicians, to pretend, that those ideas, which are their objects, are of so refined and spiritual a nature, that they fall not under the conception of the fancy, but must be comprehended by a pure and intellectual view, of which the superior faculties of the soul are alone capable. . . . But to destroy this artifice, we need but reflect on that principle so often insisted on, that all our ideas are copied from our impressions." At the same time, it should be observed that, somewhat in accordance with the view expressed by Windelband and Riehl, Hume recognized a distinction between arithmetic and algebra as exact and certain sciences, and the practical application of these sciences to concrete material. He repeatedly asserted that arithmetic and algebra are perfectly exact and certain,[4] but that in practice "all

[1] P. 348. [2] P. 353. [3] P. 375. [4] Pp. 374, 472.

knowledge degenerates into probability.''[1] Furthermore, he said:[2] ''In all demonstrative sciences the rules are certain and infallible; but when we apply them, our fallible and uncertain faculties are very apt to depart from them, and fall into error.''

Controversy on this subject has arisen owing to the fact that Hume neglected to give a derivation of number. Adamson, following in the wake of Green, insists that, on Hume's fundamental principles, a derivation of number suitable to serve as a foundation for mathematics cannot be given. While on the other hand, Windelband, recognizing that Hume held arithmetic and algebra to be perfectly exact and certain sciences, erroneously concludes that mathematics is a pure science. The truth of the matter seems to be this: not only is a derivation of abstract number possible, in accordance with the principles of empiricism, but so also is a derivation of abstract quantity. For by means of approximations, abstraction, and generalization, the transition is not difficult from the perception of real lines and circles in nature to the ideas of perfectly straight lines and perfect circles corresponding to the definitions of geometry. Hume, neglecting to give a derivation of number, failed to show how arithmetic and algebra, as abstract sciences, are possible. Nevertheless, he rightly held that arithmetic and algebra are perfectly exact and certain. And he not only failed to give a derivation of quantity—pure or abstract quantity,—but contended that such could not be given, and hence mistakenly asserted that geometry is not an exact nor certain science.

The position of many writers of the Scottish school,

[1] Pp. 472, 473. [2] P. 472.

that Hume's theory of knowledge is a system of absolute skepticism, is of course unwarranted. True, in so far as they assert that absolute skepticism is the result of the strictly logical, as distinguished from the psychological factor in this theory of knowledge, they are literally correct. The author admits this himself. "When I proceed still farther," he says,[1] "to turn the scrutiny against every successive estimation I make of my faculties, all the rules of logic require a continual diminution, and at last a total extinction of belief and evidence." But Hume clearly perceived that the human mind did not always function in conformity with the laws of logic. Then followed naturally his psychological account of mathematics,—or rather, it may be said, of knowledge in general.

III. The Psychological Treatment of Mathematics. —The psychological element is a most important factor in Hume's theory of knowledge. It is the great head stone of the corner. It is not only an original, but a distinctively Anglo-Saxon contribution to philosophy. Pfleiderer has well said that "imagination and association are two genuine English powers, through which this people, on the ideal ground of poetry and in the magnificent arena of achievement, have brilliantly paid their tribute to the world's history." Another tribute has similarly been paid in the subtle realm of speculative thought.

After stating that the logical result of his epistemological account of knowledge is a total extinction of belief and evidence, Hume proceeds:[2] "Should it here be asked me, whether I sincerely assent to this argument, which I seem to take such pains to incul-

[1] Pp. 474, 475. [2] P. 474.

cate, and whether I be really one of those skeptics, who hold that all is uncertain, and that our judgment is not in any thing possessed of any measure of truth and falsehood; I should reply, that this question is entirely superfluous, and that neither I, nor any other person was ever sincerely and constantly of that opinion. Nature, by an absolute and uncontrollable necessity has determined us to judge as well as to breathe and feel." This determination of nature arises from custom or habit. From custom arises belief. And belief alone preserves the mind from total skepticism.[1] But all demonstrative knowledge—arithmetic and algebra as well as geometry—is reduced to a species of probability. In short, the greatest degree of certainty, whether intuitive or demonstrative, is belief. "Belief is more properly an act of the sensitive, than of the cogitative part of our natures,"[2] and the degree of conviction attending it—although at times the conviction is delusive[3]—"is sufficient for our purpose, either in philosophy or common life."[4]

IV. Conclusion.—The answers of the Treatise to the first three questions that demand settlement have now been indicated. The answer to the first, is an unqualified negative. Mathematics is not an *a priori* science, but empirical, because its first principles are sensible. The answer to the second question is a qualified negative. Is mathematics an absolutely certain science? It depends upon the meaning attributed to absolute. Mathematics is not an absolutely certain science, in the sense of being *a priori* certain. For the human mind is finite; knowledge is relative; and in nearly all thinking processes there is a possi-

[1] P. 475. [2] *Ibid.* [3] *Cf.* pp. 545, 547. [4] P. 476.

bility of error. But arithmetic and algebra are empirically certain. Geometry, of course, is not. In certain passages, however, it is said that arithmetic and algebra are perfectly exact and certain sciences.[1] Yes, those statements are in the epistemological account, and are to be understood, therefore, in a provisional or relative sense. In the psychological account, Hume holds that these sciences are practically, or empirically certain, not absolutely or *a priori* certain. The answer to the third question is a divided one. Arithmetic and algebra are perfectly exact sciences; on the other hand, geometry is not.

§ 23. *Treatment of Mathematics in the Appendix.* —In the appendix Hume added a few remarks on geometry, for the purpose of further explaining his meaning. These passages do not indicate any change of view from that expressed in the Treatise, and consequently, do not require extended comment. There is but one statement that seems to call for a word of explanation. "If [mathematicians] employ," says the author,[2] "as is usual, the inaccurate standard, derived from a comparison of objects, upon their general appearance, corrected by measuring and juxtaposition; their first principles, though certain and infallible, are too coarse to afford any such subtile inferences as they commonly draw from them." Here he speaks of the first principles of geometry as being "certain and infallible," whereas, in the Treatise he had regarded them as being inexact, and not precisely true.[3] The inconsistency is only verbal. In the appendix he does not mean, literally, that the first prin-

[1] P. 374. [2] P. 357.

[3] *Cf.* pp. 350, 356, 373, 374.

ciples of geometry are "certain and infallible," for he not only says that they are "too coarse" to afford such "subtile inferences" as are commonly drawn from them, but he immediately adds that they "are founded on the imagination and senses." And in another passage he asserts[1] "that the only useful notion of equality, or inequality, is derived from the whole united appearance and the comparison of particular objects."

§ 24. *Treatment of Mathematics in the Inquiry.*— In the Inquiry, on the subject of mathematics, there is at once observable a great difference in the form of statement. Since Hume omits that portion of the Treatise which deals with space and time, and consequently neglects to give a derivation of space, as he did formerly to give a derivation of number, the sciences of arithmetic, algebra, and geometry seem to stand upon the same basis of exactness and certainty; and since he omits the account of philosophical relations, the former distinctions between the different degrees of evidence not only fall into the background, but almost entirely disappear. The obvious result is that the author appears to have approached, if not to have adopted, the common sense view of mathematics.[2] He divides "all the objects of human reason or inquiry" into relations of ideas and matters of fact; and under relations of ideas he includes the sciences of arithmetic, algebra, and geometry, "and in short, every affirmation, which is either intuitively or demonstratively certain."[3] The propositions of mathe-

[1] P. 352.

[2] *Cf.* pp. 107, 108, above.

[3] P. 20; *cf.* p. 22, 135.

matics, he holds, "are discoverable by the mere operation of thought, without dependence upon what is anywhere existent in the universe. Though there never were a circle or triangle in nature, the truths, demonstrated by EUCLID, would for ever retain their certainty and evidence."[1]

The foregoing statement summarizes Hume's treatment of mathematics in the Inquiry. It corresponds to the epistemological account in the Treatise. Both the logical and psychological accounts are omitted in the later work. Naturally, therefore, it has been almost universally supposed that there is a fundamental difference between the doctrine of mathematics in the Inquiry and that in the Treatise. The supposition, however, is without foundation. Had the logical and psychological accounts not been omitted, it is practically certain that the position of both works, on this question, would have been identical. But why are these accounts omitted? it may be asked; does not this fact in itself indicate a change of view? Not necessarily, for Hume was here giving a popular exposition of the more easy and interesting parts of his system, and he reserved mathematics for special treatment on another occasion. Later, he wrote an essay on "The Metaphysical Principles of Geometry," but did not publish it, because Lord Stanhope convinced him that "either there was some defect in the argument, or in its perspicuity."[2] Even in default of this essay, there are several incidental references in the Inquiry which go far to prove that his view of mathematics is still essentially the same as that presented in the Treatise.

[1] P. 22; *cf.* pp. 10 n., 28, 37, 50, 51, 134.

[2] *Cf.* pp. 96, 97, above.

Arithmetic, algebra, and geometry are not *a priori* sciences, but empirical. For Hume, in accordance with his principle that all ideas are copies of impressions, states explicitly that "the ideas of the mathematical sciences, being sensible," are always clear and determinate.[1] "All the ideas of quantity," he thinks,[2] "upon which mathematicians reason, are nothing but particular, and such as are suggested by the senses and imagination." Since, therefore, the mathematical sciences are empirical, they are not absolutely or *a priori* certain. "One may safely, . . . affirm," says Hume,[3] "that if we consider [the moral and mathematical sciences] in a perfect light, their advantages and disadvantages nearly compensate each other, and reduce both of them to a state of equality." The general view just indicated will be confirmed by a special consideration of geometry,—that branch of mathematics being treated somewhat more fully than is arithmetic or algebra.

It has already been shown[4] that although Hume, in the Inquiry, omitted the treatment of space and time, yet his doctrine of space and time is similar in both works. It is not surprising, therefore, that he looks upon geometry as an empirical science. His position, as stated in section iv, corresponds with that of Hobbes. His meaning is, that "the truths" demonstrated by Euclid "for ever retain their certainty and evidence," after knowledge of the geometrical figures has once been acquired. Since, however, all geometrical figures are sensible, a knowledge of them is derived only through sense experience. In short, geometry in an inductive science. But it differs from

[1] P. 50. [2] P. 129 n. [3] P. 50. [4] Pp. 95–97.

other inductive sciences in the fact that one instance serves as a sufficient basis for a generalization. "The conclusions, which [reason] draws from considering one circle, are the same which it would form upon surveying all the circles in the universe."[1] Kant, it is true, mistakenly supposed Hume to regard geometry—or rather mathematics—as an analytical science. For this opinion, indeed, Hume gave some ground when he affirmed that the equality of the square on the hypothenuse of a right angled triangle to the squares on the two sides was a relation, "discoverable by the mere operation of thought." But he explained his meaning when he declared that this relation could not "be known, let the terms be ever so exactly defined, without a train of reasoning and inquiry."[2]

Not only is geometry, as treated in the later work, an empirical science, but it is not a perfectly exact science. In the editions of 1748 and 1751, in a note appended to the twelfth section, Hume asserts:[3] "In general, we may pronounce, that the ideas of *greater, less,* or *equal,* which are the chief objects of geometry, are far from being so exact or determinate as to be the foundation of such extraordinary inferences [as those arising from the doctrine of the infinite divisibility of space]. Ask a mathematician what he means, when he pronounces two quantities to be equal, and he must say, that the idea of *equality* is one of those, which cannot be defined, and that it is sufficient to place two equal qualities before any one, in order to suggest it. Now this is an appeal to the general appearances of objects to the imagination or senses, and consequently

[1] P. 37; *cf.* Brede, *Der Unterschied d. Lehren H.*, p. 35.
[2] P. 134.
[3] P. 129 n.

can never afford conclusions so directly contrary to these faculties." This passage was omitted after the edition of 1751, but the remainder of the note was retained. It contains the following sentences: "If this be admitted [that there is no such thing as abstract or general ideas] (as seems reasonable) it follows that all the ideas of quantity, upon which mathematicians reason, are nothing but particular, and such as are suggested by the senses and imagination, and consequently cannot be infinitely divisible. It is sufficient to have dropped this hint at present, without prosecuting it any farther." Now if all the ideas of quantity are "nothing but particular, and such as are suggested by the senses and imagination," it is evident that geometry is not a perfectly exact science. That it contains "contradictions and absurdities," Hume explicitly affirms, if it be assumed that there are general ideas. He denies the assumption, however, and in that manner thinks to escape the contradictions. Yet his attempt to do this in the essay on "The Metaphysical Principles of Geometry" does not appear to have been successful.

Finally, it must be observed, that although Hume, in the Inquiry, omitted a specific criticism of reason and the senses, he said enough to indicate that the logical treatment of mathematics was omitted in the later work, not because he had changed his opinions on this subject, but because no "durable good or benefit to society" could be expected to result from such criticism.[1] Thus he asserts:[2] "The chief objection against all *abstract* reasonings is derived from the ideas of space and time; ideas, which, in common life

[1] P. 131. [2] Pp. 128, 129.

and to a careless view, are very clear and intelligible, but when they pass through the scrutiny of the profound sciences . . . afford principles, which seem full of obscurity and contradiction. . . . The demonstration of these principles seems as unexceptionable as that which proves the three angles of a triangle to be equal to two right ones, though the latter opinion be natural and easy, and the former big with contradiction and absurdity. Reason here seems to be thrown into a kind of amazement and suspense, . . . She sees a full light, which illuminates certain places; but that light borders upon the most profound darkness. And between these she is so dazzled and confounded, that she scarcely can pronounce with certainty and assurance concerning any one object." Even with regard to "the skeptical objections" to the reasonings concerning matters of fact, the author declares that, "while the skeptic insists upon these topics, he shows his force, or rather, indeed, his own and our weakness; and seems, for the time at least, to destroy all assurance and conviction."[1] But of course, as before, nature comes to the assistance of reason. The great subverter of "excessive skepticism" is action. Nature is always too strong for principle.[2] An evident implication of these passages is that although the mathematical sciences possess empirical certainty, no science possesses absolute or *a priori* certainty.

It is now manifest that Hume's view of mathematics, in the Inquiry, is substantially the same as that in the Treatise. Arithmetic, algebra, and geometry are not *a priori* sciences, but empirical; for "the

[1] P. 131. [2] *Ibid.*

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ideas" of "the mathematical sciences," having been derived from impressions, are "sensible."[1] Arithmetic, algebra, and geometry are not absolutely or *a priori* certain sciences, for the advantages and disadvantages of the mathematical and moral sciences "nearly compensate each other, and reduce both of them to a state of equality."[2] And geometry is not a perfectly exact science, for "all the ideas of quantity, . . . are nothing but particular, and such as are suggested by the senses and imagination."[3] But Hume says that arithmetic, algebra, and geometry are "intuitively or demonstratively certain."[4] Very true; this is in his epistemological account. He made the same statement in the Treatise. He does not mean, of course, that the mathematical sciences are *a priori* intuitively or demonstratively certain. But he asserts that propositions in mathematics "are discoverable by the mere operation of thought."[5] Yes, he means after the ideas have been derived from sensible objects. Yet he also affirms, that "the only objects of the abstract sciences or of demonstration are quantity and number";[6] that these sciences are a "more perfect species of knowledge"[7] than are matters of fact; and that they are "the only proper objects of knowledge and demonstration."[8] In all these statements Hume, from his point of view, is perfectly correct. It is the traditional philosopher who is in error in inferring from them *a priori* exactness and certainty, through reading the thoughts of rationalism into the words of Hume.

§ 25. *References to Mathematics in Hume's other*

[1] P. 50. [2] *Ibid.* [3] P. 129 n. [4] P. 20.
[5] P. 21. [6] P. 133. [7] *Ibid.* [8] P. 134.

Philosophical Works.—It avails little to appeal to Hume's other philosophical writings for additional information on this subject. Yet if such reference be made, it tends, on the whole, to confirm the conclusion that has already been arrived at. In the *Treatise of the Passions* the author states:[1] "The conclusions [concerning the relations of ideas] are equally just, when we discover the equality of two bodies by a pair of compasses, as when we learn it by a mathematical demonstration; and though in the one case the proofs be demonstrative, and in the other only sensible, yet generally speaking, the mind acquiesces with equal assurance in the one as in the other." In the *Treatise of Morals,*[2] "If you assert, that vice and virtue consist in relations susceptible of certainty and demonstration, you must confine yourself to those four relations, which alone admit of that degree of evidence." In the *Inquiry concerning the Principles of Morals,*[3] "It would be absurd . . . to infer, that the perception of beauty, like that of truth in general problems, consists wholly in the perception of relations, and was performed entirely by the understanding or intellectual faculties." In the *Dialogues concerning Natural Religion,*[4] "Let the errors and deceits of our very senses be set before us; the insuperable difficulties, which attend first principles in all systems; the contradictions, which adhere to the very ideas of matter, cause and effect, extension, space, time, motion; and in a word, quantity of all kinds, the object of the only science, that can fairly pretend to any certainty or evidence." In short, the statements in the treatise on *The Passions* and in the *Dialogues* imply that the

[1] II, p. 223. [2] II, p. 240. [3] IV, p. 263. [4] II, p. 381.

mathematical sciences are empirical, and that geometry is not exact; but those in the treatises on *Morals* do not seem to have exactly the same implication, although they have not necessarily a contrary one.

The difference just noticed between the statements on mathematics in the treatise of *The Passions* and the *Dialogues,* and in the treatises on *Morals* is easily explained. Not only was Hume exceedingly indefinite in his use of terms, but he did not recognize the same criterion of truth when discussing theoretical subjects, as when discussing practical subjects. Replying to Elliot,—who held that "an instinctive feeling" in the intellectual part of one's nature, "resembling the moral instinct in the moral part," corrects over refinement of subtlety or speculation,—he wrote:[1] "Your notion of correcting subtlety of sentiment, is certainly very just with regard to morals, which depend upon sentiment; and in politics and natural philosophy, whatever conclusion is contrary to certain matters of fact, must certainly be wrong, and there must some error lie somewhere in the argument, whether we be able to show it or not. But in metaphysics or theology, I cannot see how either of these plain and obvious standards of truth can have place. Nothing there can correct bad reasoning but good reasoning. And sophistry must be opposed by syllogisms."

§ 26. *Conclusion.*—The results of the discussion may be summarized as follows:—

1. The Faculties of Mind.—The more important mental faculties recognized by Hume are sensation, memory, imagination, reason, reflection, and instinct.

[1] Burton, *Life,* I, p. 324.

He did not systematically classify, nor accurately define them. He often experienced difficulty in describing what he had in mind, and used, in both works, not only a variety of terms, but also, at different times, different terms to express the same thing. Most notably is this the case with regard to imagination and instinct. Knowledge begins with sensation. Memory, imagination, and reason represent different stages of the same process. Reflection is a peculiar mixture of thinking and feeling. Instinct is not definable. It is often identified with imagination, habit, custom, or nature, and includes all those processes that cannot otherwise be explained.

The only significant change, in the Inquiry, occurs in the treatment of instinct. Here Hume takes a place among modern psychologists. Instinct, having encroached on the domains of imagination, habit, and custom, becomes the faculty, *par excellence*. It manifests itself, at least by implication, below the level of consciousness, as tendencies to react upon the environment. It subsists side by side with sensation, memory, imagination, and reason, as impulses to action, and it appears at the higher end of consciousness, transcending reason, as the ultimate ends of action, ends for which reason can assign no reason.[1] In this last sense, instincts—according to Hume,—or ideals of reason—according to the rationalistic philosophers,—are the assertion of the whole mind, the expression of the entire life of the individual. As such, they vary according to the stage of development of the person, of the community, of the nation, of the race. As people advance in civilization, contradictions natu-

[1] *Cf.* Everett, *Essays: Theological and Literary*, chs. I, VII.

rally and necessarily arise between imagination and reason, and between reason and instinct. Hume saw clearly that, in a world of progress, the solution of all the contradictions of human experience is absolutely impossible. And he does not seem to have been far from the right track when he regarded the solution of these contradictions, so far as that is possible, to lie largely within the functions of imagination and instinct. In the treatment of his problem, however, he soon encountered insuperable difficulties, because biology, which opens the ante-room of psychology, was unable to lift the latch, being only in its infancy in his day.

2. Intuitive Knowledge.—In the Treatise, intuitive, or sense and memory knowledge is based on the philosophical relations of resemblance, contrariety, and degrees of quality, and arises immediately from the observation, or comparison of impressions and ideas. It is not necessarily exact, nor certain, but is conditioned by the nature of the object observed, and the capacity of the mind observing. In the Inquiry, the classification of philosophical relations is omitted, and naturally also a treatment of intuitive knowledge; yet on this latter question, Hume's view, by implication, seems to be the same as formerly.

3. Demonstrative Knowledge.—Mathematics, or knowledge developed by reason, is based on the philosophical relation of proportions in number and quantity. In the Treatise, Hume gave three different, although not distinct or separate expositions of mathematics: an epistemological account in Parts II and III, a logical, and a psychological account in Part IV. According to the epistemological account, mathematics

is an empirical science, because the ideas of number and quantity are derived from the senses; arithmetic and algebra are perfectly exact and certain sciences, because they possess a "precise standard"; but geometry is not an exact or certain science, because its first principles are based upon the general appearances of objects to the senses and imagination. According to the logical account, "all knowledge degenerates into probability," and would at last, were it not for the influence of custom, result in "a total extinction of belief and evidence." The psychological account professes to show how judgments in the mathematical sciences, like those in any other science, retain a certain amount of assurance. Custom, or imagination, or instinct, or nature determines one by "an absolute and uncontrollable necessity" to judge and to believe, as well as to breathe and feel. The degree of belief attending the judgment is, of course, greater in short and simple problems than in long and intricate ones. But in all cases, the quality or character of belief is the same, belief being "more properly an act of the sensitive, than of the cogitative part of our natures."

In the Inquiry the logical and psychological accounts of mathematics are omitted. Hence, it has been the common opinion that Hume, in the later work, regarded mathematics as an absolutely certain science, based on *a priori* principles. And since, in the brief epistemological account that is given, arithmetic, algebra, and geometry seem to stand on an equal footing, the rationalistic philosophers, in accordance with their favorite presuppositions, naturally thought that Hume had elevated geometry to the rank of an exact science. On the contrary, how-

ever, the facts of the matter are, that he first regarded arithmetic and algebra as being on an empirical basis equally with geometry, and later modified his epistemological account to such an extent as to show that mathematics is not an absolutely certain science, and that geometry is not a perfectly exact one.

The four questions proposed at the beginning of the discussion are now answered. (1) According to Hume, mathematics is not an *a priori* science; (2) it is not an absolutely certain science; (3) geometry is not a perfectly exact science; and (4) this seems to be the position of both the Treatise and Inquiry. It only remains yet to add a remark explanatory of the fourth answer, for as here stated, it is liable to misconception. Although it is true that, in neither work, is mathematics an *a priori,* or an absolutely certain science, nor is geometry a perfectly exact one; it does not follow, by any means, that the general positions of the two works, on this subject, are identical. Logically, they are; actually, they are not. Although the doctrine is essentially the same in the Inquiry as in the Treatise, the statement of it, as has repeatedly been pointed out, is quite different. And in this case, the difference in statement is so great that, without implying any change of view on the part of the author, it produces a very remarkable change in the tone and attitude of the book. While the doctrine of the Treatise is stated fully and boldly, that of the Inquiry is expressed briefly and hesitatingly. Yet the differences in the later work are only of such a nature as can easily be explained. They arise from the omission of the logical and psychological accounts of mathematics. And these omissions were made be-

cause: (1) Hume aimed, in the Inquiry, to give a brief and popular exposition of his theory of knowledge; (2) he intended to deal with mathematics at some future time; and (3) he thought that no "durable good or benefit to society" could be expected to result from a detailed statement of the skeptical objections against reason or the senses.

When Hume maintains that mathematics is an empirical science, and consequently, not possessed of absolute or *a priori* certainty, he is indubitably right. But when, through his failure to perceive that the fundamental characteristic of general ideas is the epistemological element, he contends that geometry is not a perfectly exact science, he is unquestionably wrong. As Aristotle held that, in any science, one should expect only that degree of accuracy which is conformable to the nature of the subject; so Hume held that the different sciences, being all empirical, admit of varying degrees of exactness and certainty, according to the nature of the subject-matter. But Hume, again like Aristotle, did not succeed, in all respects, in carrying out his principle. The limitations of his time, and his own psychical predisposition —his visualizing imagination,—were obstacles too great for his philosophical genius entirely to overcome.

CHAPTER VII.

THE IDEA OF CAUSE AND EFFECT.

§ 27. *Causation the Basis of Reasoning Concerning Matters of Fact.*—The idea of causation has been an object of reflection ever since the dawn of rational speculation, and the validity of belief in causality has frequently been questioned throughout the history of philosophical inquiry. Egyptian and Jewish, Hindoo and Persian, Greek and Roman,—all historical races have had their distinctive representatives of empiricism and skepticism. It is in English philosophy, however, by intensely practical men, that the idea of cause and effect has been subjected to the most searching examination. Glanvill affirmed emphatically, that necessary connection is not perceivable by the senses. Hobbes, Locke, and Berkeley followed, more or less closely, along the same line of Pyrrhonism. They prepared the way for Hume. And although Hume, in his criticism of the idea of cause and effect, did little more, perhaps, than sum up and present in a new form the logical results of his predecessors' reflection; nevertheless, to him belongs the distinctive honor of being the first philosophical writer, who gave a final analysis of the conception of causality from the standpoint of pure empiricism. Hume's examination of the idea of cause and effect is not only an invaluable contribution to speculative thought, but also an imperishable monument to the intellectual acumen and subtle analytical power of one of the greatest of the many keen thinkers of Scotland.

Cause and substance are the two poles of the philosophy of human nature. Having treated intuitive knowledge and demonstrative, Hume proceeded to deal with that division of probability which he calls proofs, reasoning proper, moral, or experiential. This species of reasoning is conversant with matters of fact. It is not, like intuitive and demonstrative knowledge, founded on the relations of resemblance, contrariety, degrees of quality, and proportions in number or quantity; for since the contrary of matters of fact is conceivable, and therefore possible, knowledge of them is not obtained by means of reason. Nevertheless, the "arguments" in experiential, or empirical reasoning are regarded as being "entirely free from doubt and uncertainty."[1]

All reasoning is of the nature of comparison. In comparison, one of the two objects compared, or neither, or both may be present to the senses or memory.[2] If neither object is present, the reasoning is purely hypothetical.[3] This statement is analogous to Kant's famous dictum, "concepts without percepts are empty." When the two objects are present to the senses or memory, the act is called "perception rather than reasoning." Similarly Kant said that "percepts without concepts are blind." When the two objects are present to sense or memory, the comparison is based on the relations of identity and contiguity.[4] But in instances of comparison when only one object is present to the senses or memory, there is a conclusion drawn beyond experience. This is reasoning proper, or experiential reasoning. Its basis

[1] I, p. 423. [2] I, pp. 376, 384, 385; IV, p. 39.
[3] I, pp. 384, 385, 390; IV, p. 39. [4] I, p. 376.

is the relation of cause and effect.[1] In order, therefore, to discover the evidence for reasoning concerning matters of fact; that is, to learn the rational ground of experiential reasoning, it is necessary to examine the idea of cause and effect.[2]

§ 28. *Examination of the Idea of Cause and Effect.* —The treatment of causation, in the two works, although similar in form, differs much in detail. In the Treatise, the discussion is exceedingly thorough, systematic, and ingenious. In the Inquiry, on the other hand, it is brief and comparatively simple;—chiefly, no doubt, because Hume was afraid that should he "multiply words about it, or throw it into a greater variety of lights, it would only become more obscure and intricate."[3] Pfleiderer[4] states that the argument in the Treatise, like that on causation in Kant's *Kritik,* proceeds analytically, while the reasoning in the Inquiry, as in the *Prolegomena,* proceeds synthetically. Rather it should be said, that the argument in both cases is essentially analytical, but in the later work the analysis is less prominent than in the earlier.

In accordance with his usual method of argumentation, Hume, in both works, opens the discussion by inquiring after the origin of the idea.[5] On this line of attack upon rationalism he had often won, and he again feels confident of achieving his wonted success. In the Inquiry, he states briefly, and then proceeds to prove, that the knowledge of the relation of cause and effect is not attained by intuitive perception, nor

[1] I, p. 376; IV, p. 24. [2] I, p. 377; IV, p. 24. [3] P. 63.
[4] *Empirismus u. Skepsis,* p. 169 and n.
[5] I, p. 377; IV, p. 24.

by *a priori* reasoning, "but arises entirely from experience."[1] In the Treatise, Hume is at his best in the discussion of causation. Slowly and thoroughly he prepares for an exhaustive analysis of his problem, and then, with rare skill and subtle penetration, he winds his tortuous way through an argument of nearly one hundred pages, until finally he reaches his intended goal. It may be thought that the idea of cause and effect is derived by means of the senses, or by means of reason, or by means of a supra-natural power, or by means of the imagination. These are the only possible sources; and Hume examines them all. He first asserts that the impression of causation is not perceived as a quality of objects; consequently, the idea "must be derived from some *relation* among objects."[2] Next he inquires what relations are discoverable between objects that are "considered as causes or effects." These are two: (1) contiguity, (2) succession.[3] It is supposed, however, that there is still another element in causation, viz., necessary connection; that is, that there is a necessary connection between objects or events that are causally related. Moreover, it is the element of necessary connection which is always regarded as the essential part of causality. Hence this is the peculiar problem to be investigated.[4] But necessary connection among objects or events is not perceived by the senses either as a quality, or as a relation. Then Hume deems it advisable "to leave the direct survey" of the question, and "beat about all the neighboring fields." In this manner he hopes to find "a hint" that may serve to clear up the difficulty.[5] He soon discovers a clue

[1] Pp. 24, 25. [2] P. 377. [3] Pp. 377, 378. [4] P. 379. [5] P. 380.

in two questions bearing on the subject, one the general question of causation, the other the particular question. These two questions he then examines in succession; whereupon, he comes back to the point at which he turned aside, and deals directly with the idea of necessary connection. Accordingly, the treatment of the relation of cause and effect falls into three main divisions:—

I. The general question of causation.[1]
II. The particular question of causation.[2]
III. The idea of necessary connection.[3]

The accounts in both works may be examined together.

I. The general Question of Causation. The general question of causation is stated in the Treatise as follows:[4] "For what reason we pronounce it *necessary*, that every thing whose existence has a beginning, should also have a cause?" and in the Inquiry:[5] "What is the foundation of all our reasonings and conclusions concerning [the relation of cause and effect]?" These two questions, though differently expressed, are essentially the same. Huxley[6] asserts that the evidence by which Hume supports his conclusion in the Inquiry, concerning the general question of causation, "is not strictly relevant to the issue." And several writers[7] state that he omits al-

[1] I, pp. 380–383; IV, pp. 24–38.
[2] I, pp. 383–422; IV, 24–47.
[3] I, pp. 450–466; IV, pp. 50–65.
[4] P. 380. [5] P. 28. [6] Hume, p. 118.
[7] *Cf.* Selby-Bigge, *Hume's Enquiries*, Introd.; Ueberweg-Heinze, *Gesch. d. Phil.*, III, p. 201; Riehl, *Der philosophische Kriticismus*, I, p. 114 and n.; Vaihinger, *Kommentar zu Kant's Kritik*, I, pp. 347, 349.

together the consideration of this question in the later work. Now it may be admitted that part, at least, of the evidence by which he supports his conclusion in the Inquiry is not strictly relevant. But it is contended that the two questions, as above stated, are for Hume's purposes practically equivalent.[1] They imply each other in such a manner that the answer to both is the same.

In the Treatise, the author professes to show that neither intuition, nor demonstration,—neither the senses and memory, nor thought and reasoning—is the ground of the opinion that every effect must have a cause. For if the necessity of a cause for every effect could be intuitively perceived, or could be demonstrated by reason, the contrary would be inconceivable. But that the contrary is not inconceivable, he claims to prove by the following argument:[2] "As all distinct ideas are separable from each other, and as the ideas of cause and effect are evidently distinct, it will be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle." Accordingly, he concludes that the opinion of the necessity of a cause for every effect arises wholly from "observation and experience."[3] In the Inquiry,[4] Hume asserts that "the knowledge" of the relation of cause and effect "is not, in any instance, attained by reasonings *a priori*," nor by the intuitive perception of the qualities of objects, "but arises entirely from experience." His chief argument is similar to that in the Treatise:

[1] *Cf.* Caird, *The Critical Phil. of Kant*, I, p. 133 n.; Jahn, *D. H. Causalitätstheorie*, pp. 6, 41.

[2] P. 381. [3] P. 383. [4] P. 24.

"Every effect is a distinct event from its cause."[1] Consequently, it follows that "there is not, in any single, particular instance of cause and effect, any thing which can suggest the idea of power or necessary connection."[2] Of course when one abandons the atomistic view of mind, the *petitio principii* in this reasoning becomes obvious. But on Hume's presuppositions the argument is perfectly valid. If "every effect is a distinct event from its cause," or if it is easy "to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle," there is no real necessity to think that every effect must have a cause; and the supposed necessity, so far as it exists, must be explained on the ground of experience.

The next question should naturally be, how experience gives rise to the opinion, that "whatever begins to exist, must have a cause of existence?"[3] But in the Treatise, Hume finds it "more convenient to sink this question" in the particular problem of causation, remarking: "It will, perhaps, be found in the end, that the same answer will serve for both." And in the Inquiry, instead of asking how experience gives rise to the principle that every event must have a cause? he asks a related question, viz., "What is the foundation of all conclusions from experience?"[4] These two questions, that of the Treatise and that of the Inquiry, may now be considered.

II. The particular Question of Causation. The particular question of causation resolves itself into

[1] P. 27. [2] P. 52. [3] P. 383. [4] P. 28.

three parts:[1] (1) "Why we conclude, that such particular causes must *necessarily* have such particular effects?" (2) "What is the nature of that inference we draw from the one to the other?" (3) What is the nature of "the *belief*" we repose in the inferred idea? The last of these problems will be left for consideration in the following chapter. The first question does not receive separate treatment, but is dealt with incidentally in connection with the second, Hume making the characteristic remark: "Perhaps it will appear in the end, that the necessary connection depends on the inference, instead of the inference depending on the necessary connection."[2] Consequently, the subject of immediate interest is the second division of the particular question of causation, viz., "Why we form an inference from one [instance] to another?" And this question, it may be noted, resolves itself into that of the Inquiry at present under investigation; for the reason or ground on which we form an inference from one instance to another *is*, according to Hume, "the foundation of all conclusions from experience."

The argument may now be presented in two forms, as the mode of reasoning is not exactly the same in both works. This change of method, however, seems to have arisen from Hume's different ways of stating the problem, or perhaps from his desire for brevity of treatment in the Inquiry. In the Treatise,[3] the author gives a brief account of experience, professing to show how, from the observation of antecedent and consequent in a number of particular instances, the idea of cause and effect gradually arises. The infer-

[1] I, pp. 380, 383. [2] I, p. 389. [3] Pp. 388, 389.

ence, therefore, from cause to effect, or from effect to cause is a transition of the mind from "a present impression of sense or memory" to a related idea. And the transition is founded, not on such a penetration into the "essences" of objects "as may discover the dependence of the one upon the other," but on past experience. Then the question occurs, whether the transition is produced by reason, or by imagination?[1] Were it produced by reason, it would be based on the principle of the uniformity of nature. Hence the following question presents itself, what is the ground of the principle of the uniformity of nature? This principle is not established on intuitive knowledge, nor on demonstrative,—that is, it is not derived from the senses, nor from reason,—because a change in the course of nature is conceivable. Neither is it derived from probability, for probability is founded upon it.[2] Rather it arises from constant conjunction or custom, and is, therefore, an assumption that can never be proved.[3] Consequently, the transition or inference is not produced by reason, but by imagination, by means of the two primary laws of association, resemblance and contiguity, that is, through the repetition of similar instances or custom.[4]

According to the Inquiry, all conclusions from experience "proceed upon the supposition, that the future will be conformable to the past."[5] But then it must be asked, as before, what is the ground of the principle of the uniformity of nature? This principle does not rest upon demonstrative arguments,

[1] P. 390. [2] P. 391. [3] Pp. 392, 431, 545.
[4] *Cf.* pp. 390, 393, 403, 414, 459, 461, 471, 509.
[5] Pp. 29, 31, 33.

since a change in the course of nature implies no contradiction.[1] Neither does it rest upon probable reasoning or arguments from experience, since "all these arguments" are founded on the principle of the uniformity of nature.[2] This principle is merely an assumption, a product of the imagination which arises from the constant conjunction of similar instances.[3] Consequently, "the foundation of all conclusions from experience" is constant conjunction and custom.[4] Hence these two forms of the argument are ultimately one and the same. Constant or customary conjunction of resembling objects has such an influence upon the imagination, that on the appearance of one the mind passes on to the thought of the other; or as otherwise put, resembling impressions and ideas that have been constantly conjoined introduce one another, so that the repetition of similar instances carries the mind beyond actual experience, and causes it to expect similar instances in the future under similar conditions. Inference, therefore, is not an act of intuition,—of sense perception,—nor a process of demonstration, but is a transition of the imagination produced by custom. "The foundation of all conclusions from experience" also, is ultimately custom or habit. The nature of custom, however, the author professes, in each work, not to explain. It is a species of instinct, or "a principle of human nature, which is universally acknowledged, and which is well known by its effects."[5] But as in the case of the principles of association of ideas, no explanation of

[1] Pp. 31, 33. [2] *Ibid.* [3] Pp. 30, 32, 33. [4] Pp. 36, 37, 39, 40.
[5] I, pp. 471, 475; IV, pp. 37, 40, 131.

it can be given, except that furnished by experience and analogy.[1]

It is now manifest that, in his treatment of the particular question of causation, Hume has answered—at least after his own fashion—the question in the Treatise for which the particular one was substituted, viz., how experience gives rise to the principle that "every thing whose existence has a beginning should also have a cause?" He had formerly shown that this principle is a conclusion from experience;[2] now he has explained the nature of inference, or experiential reasoning; therefore, he has shown, how experience gives rise to the principle that every event must have a cause.[3] He has answered this question in the Inquiry also. In the Inquiry he asked, what is the foundation of all conclusions from experience? Therefore he asked, at least by implication, what is the foundation of the principle that every event must have a cause?—that principle being a conclusion from experience. And to explain that "the foundation of all conclusions from experience" is constant conjunction and custom, is equivalent to showing how experience gives rise to the principle that every event must have a cause. This mode of handling the matter is certainly ingenious. Under the form of many questions, Hume arranged the argument to suit his convenience, and implicitly assumed one of the main points to be proved.[4] To this assumption, of course, he was fully entitled, according to the fundamental principles of his system of philosophy. And it may

[1] *Cf.* I, pp. 321, 330, 392, 393, 471; IV, p. 37.
[2] *Cf.* p. 144, above.
[3] *Cf.* I, p. 389.
[4] *Cf.* I, pp. 380, 381, 383, 385, 390; IV, pp. 24, 27, 30, 31.

be noted that, on discarding this assumption, viz., that all perceptions are distinct and separable, Hume's position, although bereft of one of its conspicuous supports, is, in its essential import, or with but slight modifications, perfectly valid.

Logically, the next question for discussion is the third part of the particular question of causation, viz., the nature of belief. But as it seems advisable to devote a chapter to this topic, we pass on to the last general division, that is, necessary connection.

III. The Idea of Necessary Connection.—In the fourteenth section of Part III of the Treatise, and in the seventh section of the Inquiry, Hume returns to the question which was left unanswered at the beginning of the discussion, and which was supposed to be conversant with the chief element of the idea of cause and effect, viz., the question of necessary connection.[1] But having answered, in the manner that he did, the first two questions—the general one, and the particular one,—he has practically answered the third, that of necessary connection. For if nothing is known about causation except what is derived from experience, and if the ultimate ground of experience is custom, or instinct, then there is no element of necessity, as commonly understood, in the idea of cause and effect. As Hume asserts:[2] "The necessary connection betwixt causes and effects is the foundation of our inference from one to the other. The foundation of our inference is the transition arising from the accustomed union. These are, therefore, the same." Thus he arrives by a process of reasoning at a conclusion similar to the assumption with which he had started out:

[1] I, p. 379. [2] I, p. 460.

"As all distinct ideas are separable from each other, and as the ideas of cause and effect are evidently distinct, it will be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle."[1] So far as we know, therefore, or are capable of knowing, objects or events are related only by means of association and custom. Hence Hume, in explaining necessary connection, has really explained it away. Necessity exists only in the mind, not in objects. "Either we have no idea of necessity," he says,[2] "or necessity is nothing but that determination of the thought to pass from causes to effects, and from effects to causes, according to their experienced union." It might only remain now for Hume to show how the fiction of necessary connection has arisen. But as he has just examined "one of the most sublime questions in philosophy," he thinks it may be advisable to give a fuller account of his doctrine. For that reason, he brings forward some additional arguments to show that the idea is invalid. The two topics will be treated separately.

1. The idea of necessary connection is invalid. As usual, in testing the validity of any idea, Hume brings forward his "articles of inquisition," and demands from what impression the idea of necessary connection is derived?[3] It is not derived by means of the senses, from the observation of objects, because the only relations perceivable among objects are contiguity and succession.[4] It is not derived by means of thought

[1] I, p. 381; IV, p. 27.
[2] I, p. 460; IV, p. 62.
[3] I, p. 450; IV, p. 52.
[4] *Ibid.*

or reasoning, because reason can produce no new idea.[1] And it is not derived from a "supreme spirit" or the operations of "deity," as the Cartesians held, for the doctrine of innate ideas has been rejected, and power is not discoverable in spirit any more than in body.[2] These are the main arguments adduced, and thus far the reasoning, in both works, though different in form, is identical in import.

In the Treatise, however, Hume incidentally admitted that if the idea of power were once acquired, power might be attributed to "an unknown quality."[3] This admission seems to have been seized upon by his opponents as a point of vantage, for an additional argument was introduced in the appendix to refute those who assert "that we feel an energy, or power, in our own mind," and then "transfer that quality to matter." "But to convince us how fallacious this reasoning is," says Hume,[4] "we need only consider, that the will being here considered as a cause, has no more a discoverable connection with its effects, than any material cause has with its proper effect. So far from perceiving the connection betwixt an act of volition, and a motion of the body; it is allowed that no effect is more inexplicable than the powers and essences of thought and matter. Nor is the empire of the will over our mind more intelligible. . . . In short, the actions of the mind are, in this respect, the same with those of matter. We perceive only their constant conjunction; nor can we ever reason beyond

[1] I, p. 452; IV, pp. 52, 53.

[2] I, pp. 454, 455; IV, pp. 58, 59, 60. [3] I, p. 455.

[4] I, p. 455; *cf.* p. 541 for a verbal contradiction of the last sentence.

it. No internal impression has an apparent energy, more than external objects have." This argument was again brought forward in the Inquiry, and presented with considerable fulness of detail.[1] Its importance was probably overlooked, or underestimated in the earlier work. This is one of the very few instances in which there is any development in the Inquiry, of Hume's doctrine. Otherwise the argument has little significance, for it had been implied in the Treatise.[2] The conclusion of the reasoning in both books is exactly the same, viz., one never has an impression of power or necessary connection, and consequently cannot obtain a valid idea of it.

2. How the Fiction of necessary connection arises. It is thought, however, that one has an idea of power, or of necessary connection between objects or events; hence, the author's next task is to account for this fiction. Concerning the origin of the idea, the explanation of the two works is identical.[3] It is briefly as follows: One event is observed to follow another immediately; when this instance of two events in immediate succession has been repeated a number of times, the repetition, through custom, or instinct, produces a new sentiment or feeling, an impression of reflection; and this impression of reflection gives rise to the idea of power or necessary connection. "Necessity, then," says Hume,[4] "is the effect of this observation, and is nothing but an internal impression of the mind, or a determination to carry our thoughts from one object to another." Thus the idea of power or necessary connection is a product of the imagination.

[1] Pp. 54–57. [2] P. 455.

[3] I, pp. 457, 458; IV, pp. 61, 62. [4] I, p. 459; *cf.* IV, p. 63.

In the Treatise,[1] the author expressed an apprehension that although his "foregoing reasoning" appeared to him "the shortest and most decisive imaginable," yet "with the generality of readers" the bias of the mind to regard necessary connection as something objective would prevail, and give them a prejudice against his doctrine. This bias he explained in the following manner:[2] "It is a common observation, that the mind has a great propensity to spread itself on external objects, and to conjoin with them any internal impressions which they occasion, and which always make their appearance at the same time that these objects discover themselves to the senses. . . . The same propensity is the reason, why we suppose necessity and power to lie in the objects we consider, not in our mind, that considers them." These remarks are omitted in the Inquiry. But the omission is not significant, since the same explanation of the bias of mind here referred to is implied in a foot-note,[3] and is again stated in *The Natural History of Religion.*[4]

IV. Conclusion. Hume's account of necessary connection, particularly that in the Treatise, is by no means so simple as might appear from the above statement. The discussion abounds in repetitions, obscurities, and even inconsistencies. Yet the inconsistencies are often verbal rather than real, arising from the use of terms, sometimes purposely, in a loose and popular sense. It is allowed, for instance, that there are powers and operations of nature;[5] also power or efficacy is spoken of as uniting causes and effects.[6] But Hume explains that, "in all these expressions, *so applied,* we have really no distinct meaning, and make

[1] P. 461. [2] *Ibid.* [3] P. 64. [4] IV, p. 317. [5] P. 462. [6] P. 456.

use only of common words, without any clear and determinate ideas."[1] Again, the idea of power, of necessity, or of necessary connection is said to arise from a new impression, or determination,[2] from similar instances, or the observation of similar instances,[3] from an internal impression, or impression of reflection,[4] from a propensity,[5] from the repetition of related objects,[6] from habit or custom,[7] and from imagination.[8] If Hume had enjoyed the opportunity of presenting his system of philosophy in the class room, or had experienced the necessity of defending it as he formulated it, he would have been more precise in his use of terms, and more consistent in his form of expression. His various accounts of the derivation of the idea of necessary connection may be summarized briefly as follows: The terms efficacy, agency, power, force, energy, necessity, connection, and productive quality, "are all nearly synonymous."[9] Repetition,[10] custom,[11] similar instances,[12] constant conjunction,[13] instinct,[14] or imagination[15] produce a determination of the mind, a propensity, habit, customary transition, or impression of reflection. This determination,[16] propensity,[17] habit,[18] customary transition[19]—qualities of perceptions,[20]—or internal impression[21] is equivalent to power, necessity, or necessary connection. The idea

[1] P. 457; *cf.* IV, p. 29 n.
[2] Pp. 450, 451, 463.
[3] Pp. 457, 459.
[4] P. 460.
[5] *Ibid.*
[6] P. 461.
[7] P. 508.
[8] P. 511.
[9] I, p. 451; IV, p. 51.
[10] I, pp. 450, 461.
[11] Pp. 460, 464, 511.
[12] P. 459.
[13] P. 464.
[14] P. 471.
[15] Pp. 464, 511.
[16] Pp. 451, 459, 460, 461, 463.
[17] P. 460.
[18] Pp. 429, 508.
[19] P. 461.
[20] *Ibid.*
[21] Pp. 459, 460.

of power, of necessity, or of necessary connection is a copy of an internal impression, or impression of reflection.[1] Consequently, the idea of power, of necessity, or of necessary connection arises immediately or directly from a determination of the mind, propensity, habit, customary transition, internal impression, or the imagination; and mediately or indirectly from repetition of related objects, observation of similar instances, constant conjunction, custom, or instinct.

§ 29. *Misconceptions of Hume's Critics.*—From the above examination of Hume's treatment of the idea of cause and effect, it is evident that the position of both works is substantially identical.[2] There are differences in the manner of statement, it is true, but these do not seem to be significant. Some of Hume's interpreters, however, put forward the claim that, with respect to certain aspects of the question, there are real and important differences in the Inquiry. The opinions of these writers, as well as a few misconceptions of others regarding Hume's view of causality call for some further consideration.

Selby-Bigge[3] also asserts that, in the Inquiry, "the tiguity practically drops out altogether" in "the account of the origin, in particular cases, of the idea of cause and effect"; and that "the account of causation, . . . is left hanging in the air when the support of the theory of succession has been withdrawn." There does not seem to be sufficient ground to warrant these statements. Hume, it is true, affirms that "all

[1] Pp. 454, 460, 463.

[2] *Cf.* Brede, *Der Unterschied d. Lehren H.*, p. 39; Pfleiderer, *Empirismus u. Skepsis*, p. 169 and n.

[3] *Hume's Enquiries*, pp. xiii, xv.

arguments from experience are founded on the similarity, which we discover among natural objects, and by which we are induced to expect effects similar to those, which we have found to follow from such objects."[1] In like manner he had expressed himself in the Treatise.[2] The passage just quoted, however, and several others in the Inquiry of a like import, do not mean that the relation of resemblance has now assumed the functions formerly exercised by contiguity and succession in explaining the origin, in particular cases, of the idea of cause and effect. On the contrary, several statements clearly indicate that the relations of contiguity and succession play, respectively, the same rôle here as in the earlier work. Thus Hume asserts:[3] "Suppose a person, though endowed with the strongest faculties of reason and reflection, to be brought on a sudden into the world; he would, indeed, immediately observe a continual succession of objects, and one event following another; but he would not be able to discover anything farther. . . . Suppose again, that he has acquired more experience, and has lived so long in the world as to have observed similar objects or events to be constantly conjoined together; what is the consequence of this experience? He immediately infers the existence of one object from the appearance of the other." Also, when speaking of the idea of necessary connection, he says:[4] "All events seem entirely loose and separate. One event follows another; but we never can observe any tie between them. They seem *conjoined,* but never *connected.*" And in

[1] P. 31. [2] P. 391.
[3] Pp. 36, 37; *cf.* pp. 24, 30, 33. [4] P. 61.

a note in the edition of 1751 he made the decisive remark:[1] "A *cause* is different from a *sign;* as it implies precedency and contiguity in time and place, as well as constant conjunction." The fact that contiguity is omitted in the definitions of cause given in the Inquiry is not significant, since the meaning of the word is clearly implied.[2]

Selby-Bigge[3] also asserts that, in the Inquiry, "the distinction between causation as a philosophical and a natural relation is altogether dropped." This statement is not justified. In the Treatise,[4] Hume gave two definitions of cause, one as a philosophical relation, the other as a natural relation. In the Inquiry,[5] he gave two corresponding definitions. These are briefer than those in the Treatise, but they are similar in meaning. For reasons already given,[6] the author omitted in the later work an explicit distinction between natural and philosophical relations. As might be expected, therefore, in the definitions of cause, this distinction, although implied, is not formally expressed. In the section on "Liberty and Necessity," this same distinction is again implied. Hume asserts:[7] "Necessity may be defined two ways, conformably to the two definitions of cause, of which it makes an essential part. It consists either in the constant conjunction of like objects, or in the inference of the understanding from one object to another." That is, necessity, like cause, may be regarded either as a philosophical, or as a natural

[1] IV, p. 64. [2] IV, p. 63; *cf.* p. 79.
[3] *Hume's Enquiries*, Introd. [4] P. 465.
[5] P. 63; *cf.* Brede, *Der Unterschied d. Lehren H.*, p. 39.
[6] Pp. 80–83. [7] P. 79.

relation. Selby-Bigge's account of Hume's treatment of causation is somewhat obscure, no doubt owing to brevity of statement. Indeed it hardly appears to be perfectly consistent. For although he says that "contiguity practically drops out altogether" in the account of the origin, in particular cases, of the idea of cause and effect; he also says: "Contiguity, . . . drops out of the Enquiry as a philosophical relation, though it must be supposed to exert its influence as a natural relation."[1] It is sufficient to remark here that Selby-Bigge's distinction between natural and philosophical relations does not exactly conform to that of Hume. Indeed the editor of *Hume's Enquiries* does not seem to be quite free from the bondage of that "relationism" which weighed like a nightmare on the mind of Green, and still vexes sore the souls of his readers.

According to Peterson,[2] the explanatory definition of cause, inserted in edition K of the Inquiry—1753–54—"is identical with the traditional doctrine" of causation. And Selby-Bigge[3] contends that this clause added "in italics can hardly be regarded as a paraphrase or equivalent of the main definition" in the Inquiry. It is usually unfortunate for critics to differ diametrically with their author in the interpretation of his language. In edition K of the Inquiry, after defining cause as a philosophical relation, Hume added the following sentence:[4] "Or, in other words, *where, if the first object had not been, the second never had existed.*" Of course, it might seem

[1] *Hume's Enquiries*, pp. xv, xvi.
[2] *Phil. Rev.*, Vol. VII, p. 47.
[3] *Hume's Enquiries*, Introd.
[4] P. 63.

to a casual observer as if this new definition were "identical with the traditional doctrine" of causation, or at least as if it were not an "equivalent of the main definition in the Inquiry." But Hume regarded it as being identical with his doctrine of causation; it is his own definition of cause expressed "in other words." Furthermore, it may be noted that Hume fairly guarded himself from a mistaken interpretation like that of Peterson or of Selby-Bigge when he remarked, in a note on the succeeding section:[1] "If a cause be defined, *that which produces any thing;* it is easy to observe, that *producing* is synonymous to *causing.* In like manner, if a cause be defined, *that by which anything exists;* this is liable to the same objection. For what is meant by these words, *by which?* Had it been said, that a cause is *that* after which *anything constantly exists;* we should have understood the terms. For this is, indeed, all we know of the matter. And this constancy forms the very essence of necessity, nor have we any other idea of it."

Brede[2] states that, in the Inquiry, there is a higher estimation of the worth of the causal inference than in the Treatise. On the other hand, Selby-Bigge asserts:[3] "The distinction [between natural and philosophical relations] in the Treatise is indeed most bewildering, but, with its disappearance in the Enquiry, the relation of causation becomes more completely subjective." While Peterson[4] affirms that, in the Treatise "the subjective aspect is made still more

[1] P. 78. *Der Unterschied d. Lehren H.*, p. 39.
[3] *Hume's Enquiries*, p. xvii; *cf.* p. xv.
[4] *Phil. Rev.*, Vol. VII, p. 45.

prominent'' than in the Inquiry. The correctness or incorrectness of these conflicting assertions can be shown only by appealing to the author himself. No doubt it is tedious to resort continually to quotations. But there is no other method of dealing with the question under discussion. The subject will be dealt with as briefly as possible. In the Treatise Hume asserts:[1] ''We have already taken notice of certain relations, which make us pass from one object to another, even though there be no reason to determine us to that transition; and this we may establish for a general rule, that wherever the mind constantly and uniformly makes a transition without any reason, it is influenced by these relations.'' The relations are resemblance, contiguity, and cause and effect.[2] But cause and effect arises from resemblance and constant conjunction, that is, from resemblance, contiguity, and custom. And the causal inference is produced, not by the relations of resemblance and contiguity simply, but by the repetition of these relations, that is, by custom. Hence Hume says later, ''all reasoning concerning matters of fact arises only from custom.''[3] In the Inquiry he states:[4] ''Though we should conclude, . . . as in the foregoing section, that, in all reasoning from experience, there is a step taken by the mind, which is not supported by any argument or process of the understanding, there is no danger, that these reasonings, . . . will ever be affected by such a discovery. If the mind is not engaged by argument to make this step, it must be induced by some other principle of equal weight and

[1] P. 392. [2] P. 393.
[3] P. 487; *cf.* pp. 444, 475. [4] P. 36.

authority." This principle is "custom or habit," a principle which determines one to draw the causal inference when one has lived "so long in the world as to have observed similar objects or events to be constantly conjoined together."[1]

It is now necessary to discover the nature of custom, to learn if it is of "equal weight and authority" with reason. In the Treatise, the author does not give any satisfactory account of this principle. In a general way he regards it as the repetition of a number of particular instances,[2] but more specifically, as a quality of mind or mode of activity resulting from the repetition of the same experience.[3] He sometimes uses reasoning synonymously with custom, speaking of it as "a wonderful and unintelligible instinct" in the soul, a principle of nature that is common to man and beast.[4] He even holds custom to be more trustworthy than reason proper, or the understanding. "By the same rule," says Hume,[5] as the skeptic "continues to reason and believe, . . . he must assent to the principle concerning the existence of body, . . . Nature has not left this to his choice, and has doubtless esteemed it an affair of too great importance to be trusted to our uncertain reasonings and speculations." Belief in "the existence of body" arises from custom and imagination.[6] In Part IV, it is true, the author—in a criticism of the "faculty, which judges"—professes to reduce, by "the rules of logic," probable reasoning, that is, the causal inference, to "a total extinction of belief and

[1] P. 37.
[2] Pp. 458, 459.
[3] P. 403.
[4] Pp. 470, 471; *cf.* p. 403.
[5] P. 478.
[6] Pp. 487, 488.

evidence."[1] But he immediately adds: "Should it here be asked me, whether I sincerely assent to this argument, . . . and whether I be really one of those skeptics, who hold that all is uncertain, . . . I should reply, . . . Nature by an absolute and uncontrollable necessity has determined us to judge as well as to breathe and feel; nor can we any more forbear viewing certain objects in a stronger and fuller light, upon account of their customary connection with a present impression, than we can hinder ourselves from thinking as long as we are awake, or seeing the surrounding bodies, when we turn our eyes towards them in broad sunshine." Yet, in another place, Hume admits that custom is at times the ground of illusion, and "may lead us into some false comparison of ideas."[2] Thus in the Treatise, belief in the existence of body is "an affair of too great importance" to be entrusted by nature to "our uncertain reasonings and speculations"; it is entrusted to custom and imagination. And the causal inference is determined through custom or instinct with an absolute and uncontrollable necessity; yet custom is sometimes false or illusive. The case is exactly similar in the Inquiry. For instance, Hume asserts:[3] "I shall add, for a further confirmation of the foregoing theory, that, as this operation of the mind, by which we infer like effects from like causes, and *vice versa,* is so essential to the subsistence of all human creatures, it is not probable, that it could be trusted to the fallacious deductions of our reason, . . . It is more conformable to the ordinary wisdom of nature

[1] P. 474. [2] P. 415; *cf.* pp. 444, 547, 548.
[3] P. 47; *cf.* pp. 124, 127.

to secure so necessary an act of the mind, by some instinct or mechanical tendency [that is, custom], which may be infallible in its operations." But in section xii he admits:[1] "We have no argument to convince us, that objects, which have, in our experience, been frequently conjoined, will likewise, in other instances, be conjoined in the same manner; and that nothing leads us to this inference but custom or a certain instinct of our nature; which it is indeed difficult to resist, but which, like other instincts, may be fallacious and deceitful. While the skeptic insists upon these topics, he shows his force, or rather, indeed, his own and our weakness; and seems, for the time at least, to destroy all assurance and conviction." True, in the Inquiry, Hume does not subject the "faculty, which judges," to the critical examination that he did in the Treatise. Nevertheless, as he once wrote Strahan,[2] concerning the essays on suicide and immortality: "I suppressed these Essays, not because they could give any offence, but because, I thought, they could neither give pleasure nor instruction," so he remarks now, regarding the reasoning of the skeptic: "These arguments might be displayed at greater length if any durable good or benefit to society could ever be expected to result from them."[3] This observation evidently implies that his position on this topic also remains unchanged.

It has often been asserted, on the one hand, that Hume denied the possibility of a necessary connection between causes and effects, and on the other, that he denied only the possibility of a knowledge of such

[1] Pp. 130, 131; *cf.* I, pp. 547, 548; IV, p. 132.

[2] Hill, *Letters of D. H.*, p. 233. [3] P. 131.

connection. Thus Knight[1] declares that Hume's theory of causation "positively affirms that there is no power within the antecedent adequate to produce the consequent, that the notion of such causal power is a fiction of the imagination." And Riehl[2] states that Hume never denied the existence of active principles in nature, but only their knowableness and conceivability. While each position may contain an element of truth, the latter is the more correct; it is conformable with Hume's practice, the former is the more consistent with his theory. Hume's language frequently implies the existence of external objects corresponding to impressions and ideas. Occasionally, he admits such existences. In the Treatise, he says:[3] "I am, indeed, ready to allow, that there may be several qualities both in material and immaterial objects, with which we are utterly unacquainted." And in the Inquiry,[4] he acknowledges "a kind of pre-established harmony between the course of nature and the succession of our ideas," although the "powers and forces" by which the course of nature is governed are "wholly unknown to us." Hence, he does not mean to deny the existence of an external world endowed with various powers and forces, but only the possibility of knowing it. The rationalists and intuitionalists maintain, of course, that he overshoots the mark when he asserts, as he repeatedly does, that the idea

[1] Hume, p. 159; *cf.* Brougham, *Lives of Men of Letters in the Time of George III*, p. 172. Koenig, *Die Entwickelung d. Causalproblems*, I, p. 216 and n.

[2] *Der philosophische Kriticismus*, I, p. 129; *cf.* Burton, *Life*, I, p. 81; von Kirchmann, *Untersuchung in Betreff d. m. Verstandes*, p. 178.

[3] P. 462; *cf.* p. 477; II, p. 183. [4] Pp. 46, 71.

of necessary connection among external objects is a fiction. For to assert that this idea is fictitious and false is the same as to imply that there is not any necessary connection among objects in the external world. It should be observed, however, that the idea which Hume affirmed to be false was the rationalistic idea of causality. And in this respect, it will now be generally conceded that he was correct. Nevertheless, had he contented himself with stating that such necessary connection, provided it exists, is unknown, the position would have been quite satisfactory to the empiricists, as well as perfectly consistent with his own principles.

Finally, there are some writers[1] who insist that Hume's theory of causation is the same, or practically the same as that of Kant. The truth of this statement depends upon the manner in which it is interpreted. With Hume, as with Kant, the idea of cause and effect is subjective, and is not valid when applied to suprasensible things; to this extent both agree. According to Hume, however, the idea is empirically derived, by means of the imagination, from repetition, custom, or instinct, and in a similar manner is applicable to perceptions; while according to Kant, the idea is a transcendental concept of the understanding, and is *a priori* valid when applied within the realm of phenomena. With the former, therefore, the idea is equivalent to the invariable succession of antecedent and consequent; with the latter, it contains an element of necessity over and above invariable succession. True, according to Hume, the idea of cause and effect

[1] *Cf.* Riehl, *Der philosophische Kriticismus*, I, p. 139; Simon, *Berkeley's Principles of Human Knowledge*, pp. 203, 206; Webb, *Veil of Isis*, p. 94; Stirling, *Mind*, Vol. X, p. 71.

contains, after a manner, an element of necessity also. But the necessity spoken of in this case is that which arises from imagination and custom, from an instinct which is the great guide of human life, but which, like any other instinct, may be fallacious and deceitful. This subjective necessity of imagination and custom is fundamentally different from that *a priori* necessity of the understanding for which Kant persistently contended.

§ 30. *Conclusion.*—The main points in the chapter may now be brought together. There are two prominent elements in Hume's treatment of the idea of cause and effect; one logical or epistemological, the other psychological. The former deals with the ground of the transition or causal inference; the latter explains the genesis of the idea of necessary connection.

1. The causal inference is not a conclusion of the understanding, but an activity of the imagination. It is not a logical inference, but a psychological process. It is not a product of reason, but of custom. It arises on the observation of a number of similar instances constantly conjoined, and differs from a mere idea of imagination in having greater force, vivacity, or liveliness, that is, belief. Although the conclusion is not a valid inference logically, yet psychologically it is a necessary one. It is even spoken of as being superior to the "fallacious deductions" of reason.[1] At the same time, however, not only does there exist a conflict between the imagination and instinct, on the one hand, and the understanding, or "the general and more established prop-

[1] I, p. 478; IV, p. 47.

erties of the imagination,"[1] on the other, but each of these faculties alone subverts or contradicts itself.[2] The causal conclusion rests upon precisely the same basis in both works. Although the inference, or transition cannot be theoretically justified; yet practically, it is indubitable, and is sufficient for all the purposes of life.

2. The idea of necessary connection between causes and effects arises in the mind at the same time as the causal inference, and in the same manner, viz., from experience, through imagination and custom. The genesis of the idea has three stages, two of which may be called objective, and one subjective: (1) The mind observes a number of similar instances constantly conjoined; (2) as the result of this observation, a new feeling, determination, or internal impression arises, the impression of reflection of which the idea of necessary connection is a copy; (3) the idea of necessary connection, which at first is wholly subjective, is gradually applied to external objects through a quality of the imagination, and in this way arises the idea of necessary connection between objects or events. Consequently, the idea of cause and effect is valid as a copy of a subjective feeling, and is applicable to objects in the sense of invariable succession of antecedent and consequent; but as an idea of necessary connection between objects or events, it is a mere fiction. The genesis of the idea explains its nature and validity. On all these points the position of the Inquiry is the same as that of the Treatise.

In the history of speculative thought, the paradoxes

[1] I, p. 547. [2] I, pp. 505, 511, 547; IV, pp. 125, 127, 131.

of one age often become the orthodoxy of the next, and in turn become the absurdities of the succeeding age. Such has been true of the idea of cause and effect. Invariable succession of antecedent and consequent, the striking paradox of Hume's day, became in a later time the commonly accepted view of causation, and has now in turn given place to a juster conception, that of the equivalence of cause and effect. But while thought moves in cycles, these at most are only corresponding, never identical. The empiricist's criticism of causality has been made once for all. As Luther burst the bonds of scholasticism, Hume rent for ever the veil of rationalism. The philosopher, however, was more successful at demolishing old temples, than at erecting new ones. While the foundation which he first laid still remains, the Humian structure, never stable, has already crumbled with its own weight. It is beyond the scope of this work, of course, to give a derivation of the idea of cause and effect. Suffice it to say, that this idea is a product of experience. Its origin and history are to be sought in the life of the race. True, it passes through a series of corresponding stages in the life of each normal individual. Its dawn is unfolded in the conscious activity of the child. The essential element at this stage is producing power. The element of necessary connection does not arise until much later, sometimes indeed does not appear at all. The early age at which Hume wrote the Treatise is possibly a partial explanation why he insisted so strongly upon his principle that events seemed "conjoined" but not "connected," that it is easy "to conceive any object to be non-existent this moment, and existent the

next,'' without attaching to it the idea of ''a cause or productive principle.'' The idea of equality between cause and effect may arise either before, or after that of necessary connection, according to the character of the person's environment. But the idea of causation, in any, and every stage of its development, is merely a generalization, conscious or unconscious, from the totality of experience.[1]

[1] *Cf.* Schurman, *Phil. Rev.*, Vol. VIII, p. 457–463.

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